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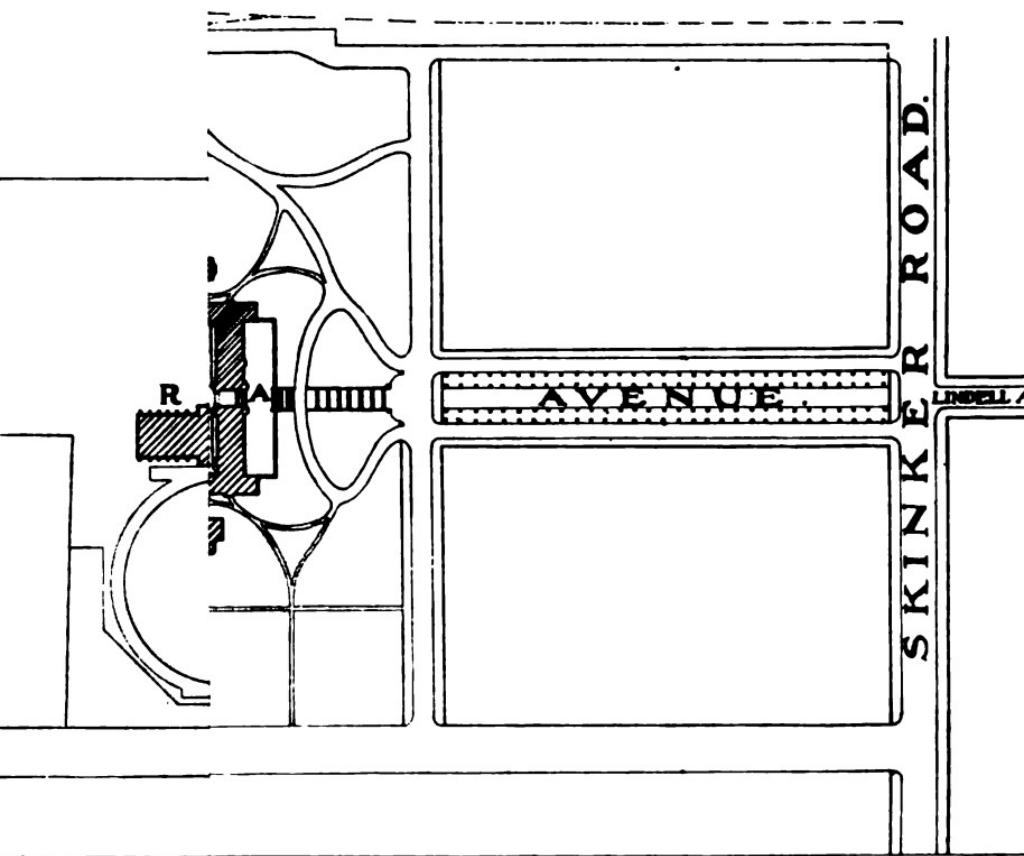
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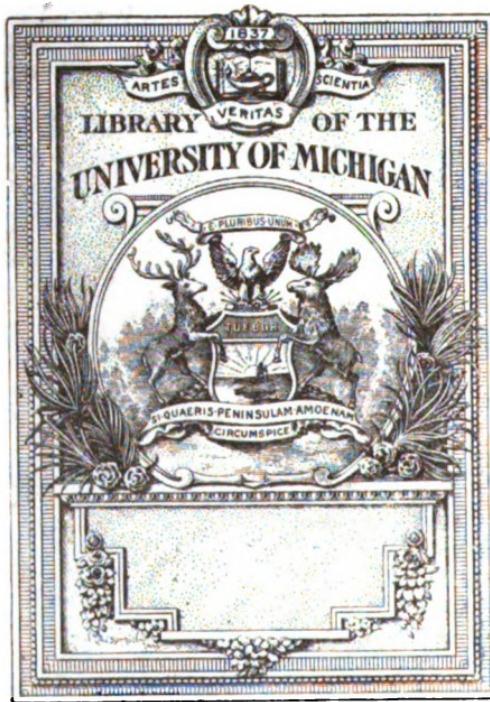
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HOPE & STEWARDSON, ARCHITECTS.

A Catalogue of the Officers and Students of Washington University, ...

Washington University (Saint Louis, Mo.)



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WASHINGTON UNIVERSITY.

1895-96.

A CATALOGUE
OF THE
OFFICERS AND STUDENTS
IN
WASHINGTON UNIVERSITY,
=
WITH THE
COURSES OF STUDY
FOR THE
ACADEMIC YEAR 1895-96.

ST. LOUIS:
NIXON-JONES PRINTING CO.
1896.

CALENDAR FOR 1896 and 6 MONTHS OF 1897.

1896.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
	5	6	7	8	9	10	11	12	13	14	15	16
	12	13	14	15	16	17	18	19	20	21	22	23
	19	20	21	22	23	24	25	26	27	28	29	30
	26	27	28	29	30	31		3	4	5	6	7
	2	3	4	5	6	7	8	9	10	11	12	13
	9	10	11	12	13	14	15	16	17	18	19	20
	16	17	18	19	20	21	22	23	24	25	26	27
	23	24	25	26	27	28	29		1	2	3	4
	1	2	3	4	5	6	7	8	9	10	11	12
	8	9	10	11	12	13	14	15	16	17	18	19
	15	16	17	18	19	20	21	22	23	24	25	26
	22	23	24	25	26	27	28	29	30	31		
	29	30	31									
	5	6	7	8	9	10	11	12	13	14	15	16
	12	13	14	15	16	17	18	19	20	21	22	23
	19	20	21	22	23	24	25	26	27	28	29	30
	26	27	28	29	30							
	1	2	3	4	5	6	7	8	9	10	11	12
	8	9	10	11	12	13	14	15	16	17	18	19
	15	16	17	18	19	20	21	22	23	24	25	26
	22	23	24	25	26	27	28	29	30	31		
	29	30	31									

1897.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
	3	4	5	6	7	8	9	10	11	12	13	14
	10	11	12	13	14	15	16	17	18	19	20	21
	17	18	19	20	21	22	23	24	25	26	27	28
	24	25	26	27	28	29	30	31		1	2	3
	31											
	1	2	3	4	5	6	7	8	9	10	11	12
	7	8	9	10	11	12	13	14	15	16	17	18
	14	15	16	17	18	19	20	21	22	23	24	25
	21	22	23	24	25	26	27	28	29	30	31	
	28											
	4	5	6	7	8	9	10	11	12	13	14	15
	11	12	13	14	15	16	17	18	19	20	21	22
	18	19	20	21	22	23	24	25	26	27	28	29
	25	26	27	28	29	30	31		1	2	3	4
	30	31										
	2	3	4	5	6	7	8	9	10	11	12	13
	9	10	11	12	13	14	15	16	17	18	19	20
	16	17	18	19	20	21	22	23	24	25	26	27
	23	24	25	26	27	28	29	30	31		1	2
	30	31										

UNIVERSITY CALENDAR.

1895-96.

ENTRANCE EXAMINATION to the Manual Training School, Friday,
September 20, 1895.

MANUAL TRAINING SCHOOL opens Monday, September 23.

ENTRANCE EXAMINATION to the Undergraduate Department,
Wednesday and Thursday, September 25-26.

ENTRANCE EXAMINATION to the Law School, Wednesday, Sep-
tember 25.

ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 24-25.

ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 24-25.

ENTRANCE EXAMINATION to Smith Academy, Monday, Tuesday
and Wednesday, September 23-25.

ENTRANCE EXAMINATION to Mary Institute, Tuesday and
Wednesday, September 24-25.

SCHOOL OF FINE ARTS opens Monday, September 23.

UNDERGRADUATE DEPARTMENT opens Thursday, September 26.

LAW SCHOOL opens Thursday, September 26.

MEDICAL COLLEGE opens Thursday, September 26.

DENTAL COLLEGE opens Thursday, September 26.

SMITH ACADEMY opens Thursday, September 26.

MARY INSTITUTK opens Thursday, September 26.

HOLIDAY. Thanksgiving Day, Thursday, November 28.

VACATION, December 21, 1895, to January 1, 1896, inclusive.

FIRST TERM ends Friday, January 31.

SECOND TERM begins Monday, February 3.

HOLIDAY, Washington's Birthday, Saturday, February 22.
CONTEST FOR PRIZES IN ORATORY AND DECLAMATION, Friday,
April 17.
DENTAL COLLEGE closes Thursday, April 23.
MEDICAL COLLEGE closes Friday, April 24.
COMMENCEMENT Medical and Dental Colleges, Thursday,
April 30.
UNIVERSITY HOLIDAY, Friday, May 8.
EXHIBITION OF WORK of School of Fine Arts, June 9-11.
ENTRANCE EXAMINATION to Smith Academy, Saturday, June 13.
ENTRANCE EXAMINATION to the Undergraduate Department,
Monday and Tuesday, June 15-16.
EXHIBITION OF WORK of Manual Training School, Tuesday
morning, June 16.
GRADUATING EXERCISES, Smith Academy, Tuesday evening,
June 16.
GRADUATING EXERCISES, Mary Institute, Friday morning,
June 12.
GRADUATING EXERCISES, Manual Training School, Wednesday
evening, June 17.
ENTRANCE EXAMINATION to the Manual Training School,
Thursday morning, June 18.
COMMENCEMENT, Law School and Undergraduate Department,
Thursday evening, June 18.
VACATION, June 19 to September 24.

1896-97.

ENTRANCE EXAMINATION to the Manual Training School,
Friday, September 18, 1896.
MANUAL TRAINING SCHOOL opens Monday, September 21.
ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 22-23.
ENTRANCE EXAMINATION to the Law School, Wednesday, Sep-
tember 28.
ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 22 and 23.

ENTRANCE EXAMINATION to the Dental College, Tuesday and Wednesday, September 22 and 23.

ENTRANCE EXAMINATION to Smith Academy, Monday, Tuesday, and Wednesday, September 21-23.

ENTRANCE EXAMINATION to Mary Institute, Tuesday and Wednesday, September 22-23.

SCHOOL OF FINE ARTS opens Monday, September 21.

UNDERGRADUATE DEPARTMENT opens Thursday, September 24.

LAW SCHOOL opens Thursday, September 24.

MEDICAL COLLEGE opens Thursday, September 24.

DENTAL COLLEGE opens Thursday, September 24.

SMITH ACADEMY opens Thursday, September 24.

MARY INSTITUTE opens Thursday, September 24.

HOLIDAY, Thanksgiving Day, Thursday, November 26.

VACATION, December 24, 1896, to January 4, 1897, inclusive.

FIRST TERM ends Friday, January 29.

SECOND TERM begins Monday, February 1.

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7

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GOVERNMENT AND INSTRUCTION.*

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LL.D., Collier Professor of Greek .	1637 Washington av.
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HERMAN L. NIETERT, M. D., Demonstrator of Anatomy 320 Cedar st.
WILLIAM JAMES LARK, Demonstrator of Mechanical Dentistry 2709 Washington av.
JOHN WETMORE MARSH, Demonstrator of Operative Dentistry 1126 Channing av.

GENERAL STATEMENT.

Washington University, founded in the city of St. Louis, under an Act of Incorporation by the State of Missouri, approved February 22, 1853, is intended to embrace the whole range of University studies except Theology, and to afford opportunity of complete preparation for every sphere of practical and scientific life.

By the Eighth article of the Constitution, "no instruction, either sectarian or religious, or partisan in politics, shall be allowed in any Department of the University: and no sectarian or partisan test shall be used in the election of Professors, Teachers, or other officers of the University for any purpose whatsoever. This article shall be understood as the fundamental condition on which all endowments, of whatsoever kind, are received." The Constitution also declares the article now quoted "not subject to alteration at any time;" but to guard against all encroachments in this important particular, the Directors have obtained from the General Assembly an amendment to the Charter, by which said article is incorporated in the same, and thereby placed beyond the power of any future Board of Directors. The Act of Amendment, approved February 12, 1857, declares: —

"SEC. 2. No instruction, either sectarian in religion.

or partisan in politics, shall be allowed in any Department of said University; and no sectarian or party test shall be allowed in the election of Professors, Teachers, or other officers of said University; or in the admission of scholars thereto, or for any purpose whatever.

" SEC. 3. It shall be the duty of the Board of Directors of the said University, upon being informed of any violation of the second section of this Act, forthwith to institute an inquiry into the charge or charges that may be preferred, in respect thereof, by any credible person, in writing, against any officer of said University, and if it shall appear that any officer of said University has violated the second section of this Act, the Board of Directors shall forthwith remove any such person so offending from any office which he may then fill in any Department of said University; and such person so removed shall be forever thereafter ineligible to any office in said University.

" SEC. 4. In case the Board of Directors, upon being notified in writing, by any credible person, of a violation of the second section of this Act, shall refuse or neglect to investigate the charges thereupon preferred against any officer of said University, it shall be competent for the St. Louis Circuit Court, or the St. Louis Court of Common Pleas, to compel the Board of Directors, by *mandamus*, to perform their duty in investigating such charge, and to show their performance of such duty to the satisfaction of the Court having cognizance of the matter, and all proceedings under this section shall be summary, and conducted to a conclusion with as little delay as possible; and the power hereby given to said

courts may be exercised by the judge of either of said tribunals in vacation."

On the 22d of April, 1857, the formal inauguration of Washington University took place with appropriate exercises in University Hall, and an oration delivered by Hon. Edward Everett, in the Mercantile Library Hall. An advanced scientific class was organized at that time. The Academy had then been in operation about three years. The College and Mary Institute were organized in 1859, and the first Senior Class was graduated from the College in June, 1862. The Law School was organized in 1867, the Polytechnic School, now known as the School of Engineering, in 1870, the School of Fine Arts and the Manual Training School in 1879, the School of Botany in 1885. The St. Louis Medical College, founded in 1842, was admitted as a Department of the University in 1891, and the Missouri Dental College in 1892.

To show the principle on which endowments are invited, the fifth, sixth and seventh articles of the Constitution are here inserted.

"ARTICLE V.

"ENDOWMENT OF PROFESSORSHIPS.

"Any person may endow in whole or in part a specified Professorship in the said University; and if, in the opinion of the Board of Directors, said endowment shall be sufficient for the support of said Professorship, said Professorship shall bear the name of its founder forever, unless at the time of the endowment he shall otherwise direct.

"ARTICLE VI."**"ENDOWMENT OF DEPARTMENTS."**

"Any person may found, by an adequate endowment, a specific Department in said University: provided the plan of its organization and its purposes are approved by the Board of Directors, and if said endowment shall, in the opinion of said Board, be sufficient for the perpetual support of said Department it shall bear the name of the founder thereof forever, unless he shall otherwise direct at the time of endowing the same.

"ARTICLE VII."**"SPECIFIC FUNDS."**

"All funds and property of whatever nature and description, contributed to the endowment or foundation of a Professorship or Department, shall forever be faithfully applied to the specific purpose for which contributed, and to no other object whatsoever, without the written consent of the donor or founder thereof, or his heirs and assigns, and also the written consent of two-thirds of the Directors first had and obtained; provided, however, that said funds and property in this article named shall never be diverted from the purposes of said University."

WASHINGTON UNIVERSITY

COMPREHENDS:

I. UNDERGRADUATE DEPARTMENT;
INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.
Washington Avenue and Seventeenth Street.

II. HENRY SHAW SCHOOL OF BOTANY.
1724 Washington Avenue.

III. ST. LOUIS SCHOOL OF FINE ARTS.
Lucas Place and Nineteenth Street.

IV. ST. LOUIS LAW SCHOOL.
1417 Lucas Place.

V. ST. LOUIS MEDICAL COLLEGE.
1806 Lucas Place.

VI. MISSOURI DENTAL COLLEGE.
1814 Lucas Place.

The following schools have also been organized under the charter of the University:—

- I. SMITH ACADEMY.**
- II. MARY INSTITUTE.**
- III. MANUAL TRAINING SCHOOL.**

For particulars in regard to these schools see special catalogues, to be had on application to Geo. M. Bartlett, Secretary, 1704 Washington avenue.

THE UNDERGRADUATE DEPARTMENT,
INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

FACULTY.

WINFIELD S. CHAPLIN,
Chancellor.

SYLVESTER WATERHOUSE,
Professor of Greek.

CALVIN M. WOODWARD,
*Professor of Mathematics and Applied Mechanics and Dean of the
School of Engineering:*

GEORGE E. JACKSON,
Professor of Latin.

MARSHALL S. SNOW,
Professor of History and Dean of the College.

FRANCIS E. NIPHER,
Professor of Physics.

EDMUND A. ENGLER,
Professor of Mathematics and Descriptive Geometry.

HENRY S. PRITCHETT,
Professor of Mathematics and Astronomy.

JOHN B. JOHNSON,
Professor of Civil Engineering.

WILLIAM TRELEASE,
Professor of Botany.

CHARLES R. SANGER,
Professor of Chemistry.

JAMES MAIN DIXON,
Professor of English.

OTTO HELLER,
Professor of German.

JOHN H. KINEALY,
Professor of Mechanical Engineering.

WILLIAM F. HANCOCK,
Professor of Military Science and Tactics.

GUSTAV HAMBACH,
Adjunct-Professor of Geology.

HENRY AUGUST HUNICKE,
Adjunct-Professor of Applied Chemistry.

HOLMES SMITH,
Instructor in Drawing.

HENRI DUMAY,
Instructor in French.

INSTRUCTORS.

CHARLES H. MUEGGE,
Instructor in Gymnastics.

CHARLES E. JONES,
Instructor in Forging.

GEORGE B. SWAFFORD,
Instructor in Wood-work.

EDWARD P. PERRY,
Instructor in Elocution.

ALLERTON S. CUSHMAN,
Instructor in Chemistry.

CHARLES RAND HATFIELD,
Instructor in Political Economy.

CHARLES N. McFARLAND,
Instructor in Metal-work.

ORVILLE LOGAN SIMMONS,
Instructor in Cryptogamic Botany.

WILLIAM H. BOEHM,
Instructor in Mechanical Engineering.

JOHN LANE VAN ORNUM,
Instructor in Civil Engineering.

CARL KINSLEY,
Instructor in Physics.

WILLIAM H. RUSH.
Instructor in Botany.

STUDENTS.

SENIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Benecke, Louis Albert	Civ. Eng.	Brunswick, Mo.
Branch, Sarah Glasgow	Arts . . .	4344 Washington av.
Brinsmade, Louis Lyon	Mech. Eng.	4429 Morgan st.
Bristol, Harold Bennett	Mech. Eng.	Webster Groves, Mo.
Bryan, Mary McIlvaine	Arts . . .	2800 Russell av.
Bruère, Robert Walter	Arts . . .	St. Charles, Mo.
Carter, Thomas Bailey	Elect. Eng.	Farmington, Mo.
Chaplin, Trescott Fox	Arts . . .	3636 W. Pine st.
Chassaing, Charles Willis	Civ. Eng.	1762 Missouri av.
Denison, Grace Maria	Arts . . .	1913 S. Compton av.
Fleming, Harvey Brown	Civ. Eng.	Newburgh, N. Y.
Hospes, Cecilia Lizzette	Arts . . .	3001 Lafayette av.
Lawver, Albert Briggs	Arts . . .	5715 Clemens av.
Long, Sarah Elizabeth	Arts . . .	3872 Washington av.
Mannebach, Cyrus Charles	Arts . . .	1927 Lucas av.
Miller, Edith Faulkner	Arts . . .	3854 Pine st.
Oberschelp, Henry Herman	Arts . . .	2550A St. Louis av.
Perkins, Fanny Elizabeth	Arts . . .	3645 Laclede av.
Pettit, Irene	Arts . . .	2804 Washington av.
Pirscher, Charles Frederick	Arts . . .	1214 Victor st.
Pirscher, John Martin	Chem. . .	1214 Victor st.
Post, Truman Marcellus	Elect. Eng.	3838 Windsor pl.
Rosenwald, Lucian . . .	Civ. Eng. .	Las Vegas, N. M.
Stolberg, Emil Charles	Elect. Eng.	Belleville, Ills.
Zener, Helen May . . .	Arts . . .	5608 Clemens av.

Total, 25.

JUNIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Anguiano, Angel	Mech. Eng.	City of Mexico, Mex.
Bernays, Walter Ernst	Chem.	3623 Laclede av.
Branch, Henry	Mech. Eng.	4314 Washington av.
Bryan, Wm Morgan Case	Arts	2933 Dickson st.
Chaplin, Susan Elizabeth	Arts	3636 W. Pine st.
Fisher, Guy Kellogg	Elec. Eng .	1828 Lafayette av.
Fisher, Lee David	Mech. Eng.	Clifton Terrace, Ill.
Gilbert, Helen May	Arts	1410 S. Ewing av.
Henney, Bertha	Arts	4027 Morgan st.
Hill, Betty	Arts	1743 Preston pl.
Hough, Bodley	Civ. Eng. .	Kirkwood, Mo.
Hunicke, Wm. August	Civ. Eng. .	2937 Henrietta st.
Jacobs, Arthur Irwin	Elec. Eng. .	2824 Clark av.
Jones, Mary Persis	Arts	3620 Pine st.
Kirchner, Walter Charles George	Arts	4476 Easton av.
Kramer, Arthur	Civ. Eng. .	2131 Walnut st.
Koch, Waldemar Hermann August	Chem.	6847 N. Manchester rd.
Miller, Robert Charles	Civ. Eng. .	1751 Missouri av.
Roever, William Henry	Mech. Eng.	3628 St. Louis av.
Rumsey, Lewis Miller, Jr.	Mech. Eng.	3536 Morgan st.
Trepp, Samuel	Elec. Eng. .	522 Ware av.
Tyrrell, Warren Ayres	Civ. Eng. .	1643 S. Jefferson av.
Van Duzer, Sue	Arts	5639 Clemens av.
Womeldorf, Charles F.	Civ. Eng. .	Neligh, Neb.

Total, 23.

SOPHOMORE CLASS.

Andel, George Kirchner	Belleville, Ill.
Brigham, Amy Frances	2742 Washington av
Burnham, Grace	2942 Laclede av.
Chamberlin, Louise	3119 Lucas av.
Clark, William Glasgow	4201 Page av.

NAMES.	RESIDENCE.
Conzelman, John Edward	2901 Morgan st.
Dickson, Joseph	3518 Morgan st.
Evans, Charles Orrick, Jr.	Kirkwood, Mo.
Frankenthal, Maurice Albert	1827 Kennett pl.
Gruen, William Henry	1887 Hickory st.
Haeherle, Armin	Eden College.
Knapp, Charles Speck	1206 Morrison av.
Langsdorf, Alexander Suss	3188 Laclede av.
Norden, Max	2342 S. 12th st.
Rapp, Frank Arthur	1315 Taylor av.
Ruth, Anna Harding	2626 Thomas st.
Schlossstein, Louis Adolph	1210 Sidney st.
Sessinghaus, Bertha Charlotte	2901 Rauschenbach av.
Shields, Walter	3860 Delmar boul.
Steele, Helen Pomeroy	2825 Washington av.
Smith, Asa Urbin	Huntsville, Texas.
Whitaker, William Lowndes, Jr.	4397 Forest Pk. boul.
Willits, Edward Everett	4648 Kennerly av.
Wright, Thomas Henry	1435 Missouri av.

Total, 24.

FRESHMAN CLASS.

Adams, Grace	1010 Newstead av.
Adkins, James, Jr.	1414 S. Ewing av.
Bates, Bertha	3522 Washington av.
Bergen, Albert Alexander	3188 Pine st.
Birge, Walter William	2949 Euclid av.
Bouton, Walter Scott	2909 Park av.
Bryan, Archibald Moore	Washington, Mo.
Cave, Rhodes Es'il	3921 Delmar boul.
Cole, John Gully	4023 Westminster pl.
Davis, Dwight Filley	17 Westmoreland pl.
Dean, Clara Ruth	3559 Olive st.
Delatfield, Wallace, Jr.	3019 Washington av.
Evers, Helen Margaret	1861 N. Market st.

NAMES.	RESIDENCE.
Glasgow, William Ross	2847 Washington av.
Hendrich, Charles August	2805 Lafayette av.
Heuser, Leon Victor	3546 Lindell av.
Howard, Arthur Bryce	1026 Dolman st.
Kimball, Arthur Campbell	Kirkwood, Mo
Kirchner, Elida Caroline	4234A Easton av.
Koken, Ernest Charles Frank	3522 Hawthorne boul.
Krutzsch, Paul	2318 Albion pl.
Lange, Charles William	Edgebrook, Mo.
Leavitt, Sherman	5515 Cabaune pl.
Lubke, Laura Lisette	2823 Dayton st.
MacAdam, David Hastings	Kirkwood, Mo.
Pettus, Charles Parsons	2834 Chestnut st.
Pollock, Robert Bowers	4055 Delmar boul.
Robinson, Arthur Dwight	4174 West Belle pl.
Setz, Carl Frederick	Bushberg, Mo.
Simpson, William Simeon Jr.	2110 Lafayette av.
Stoffregen, Charles Henry	3514 Hawthorne boul.
Stuart, James Lyall	4010 West Belle pl.
Vetsburg, Karl Max	4154 McPherson av.
Weston, Albert Henry	2011 N. 11th st.
Wittler, William Stephen	1134 Rutger st.
Woermann, Frederick Christian	2800 Cass av.
Woods, Neander Montgomery, Jr.	2618 Grand av.

Total, 37.

SPECIAL STUDENTS.

Allen, George Walbridge	1741 Mississippi av.
Arbuckle, Alexander Rutland	3937 Washington boul
Avis, Mabel Dean	4115 Delmar av.
Beck, Henrietta	3043 Washington av.
Botts, Homer	{ Morgan, N. E. cor. 19th st.
Burg, Arthur Henry	1756 Missouri av.
Caldwell, Grace	5922 Horton place.

NAMES.	RESIDENCE.
Chambers, Stella Georgina	Florence, Colo.
Clark, Virginia Lee	3215 Washington av.
Damon, Lois	3400 Russell av.
Denison, Helen Abbott	2624 Russell av.
D'Oench, Elizabeth Fredericke	2205 Sidney st.
Ely, Tula D.	4118 Washington av.
Euston, Edwin	3780 Lindell boul.
Godlove, George Washington, Jr.	5816 Julian av.
Finney, Mary Shackelford	4028 Morgan st.
Hart, Charles Holliday	4227 Evans av.
Heitzig, Albert William	2957 Dickson st.
Hill, Mary Belle	4426 West Pine boul.
Hodgman, Lucy H.	3532 Pine st.
Hospes, Theresa Bertha	Old Orchard, Mo.
Hughes, Ray M.	8860 West Pine boul.
Jolley, Edwin James	1222 Aubert av.
Lewis, Mary Elizabeth	8888 Washington boul.
McMullen, Josiah Francis	Vancouver, Wash.
Maverick, Mary Rowena	2728 Locust st.
Miller, Grace Montgomery	4182 Washington boul.
Miller, Sue Earl	8849 West Pine boul.
Methudy, Adolph Edward	1800 Waverly pl.
Noonan, Edward A., Jr.	1835 Madison st.
Rhodus, Ida	3924 Cook av.
Russell, Jennie Bell	1746 Missouri av.
Schulenberg, Ellen	2822 Eads av.
Schwab, Leonore Ella	4398 Westminster pl.
Stix, Cora	3185 Washington av.
Street, James Clark Street	4206 Washington boul.
Thomson, Annie Larkin	3805 Lindell boul.
Thompson, Frances Dulty	8969 Washington boul.
Tyler, Eleanor Murdock	8215 Lucas av.
Valier, Annette	4362 Washington boul.
Weinrich, Ella Amalie	1746 Waverly pl.
Womeldorf, Chas. Fred.	Negligh, Neb.

THE UNDERGRADUATE DEPARTMENT.

29

NAMES.	RESIDENCE.
Woodward, Hilda	3018 Hawthorne boul.
Woodward, Margaret	3013 Hawthorne boul.
Wright, M. Elizabeth	Terre Haute, Ind.
Wright, Ralph Garrigue	3008 Laclede av.
	Total, 46.

SUMMARY.

Seniors	25
Juniors	23
Sophomores	24
Freshmen	87
Special Students	46
	—
	Total, 155

ADMISSION TO THE COLLEGE.

TIME OF ADMISSION.

Candidates for admission to the College will present themselves for examination on Monday, June 15, 1896, in room No. 8, east wing of University Hall, at 9 o'clock A. M. A second examination will be held on Tuesday and Wednesday, September 22 and 23, for such candidates as cannot be present in June.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other colleges are required to present testimonials of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression.
- II. *Algebra*, including equations of the second degree.
- III. *Elementary Plane Geometry.* Wentworth's Geometry or its equivalent.
- IV. *Latin.* Grammar, four books of Caesar, seven orations of Cicero, and six books of the *Aeneid* of Virgil. Prose Composition.

V. Modern Language. Either French or German at the option of the candidate; facility in reading prose at sight and knowledge of the grammar such as can be acquired in two years of careful study in the preparatory school.

VI. History. Of the United States and of England, such as is found in any general history intended for the use of high schools; of Greece and Rome, such as is found in Pennell's or Smith's Small Histories.

VII. One of the following:—

1. *Greek.* Goodwin's Grammar and Reader; or Grammar, four books of the Anabasis, and three books of the Iliad; Prose Composition.
2. *German or French.* The one not offered under requirement V., above, an amount equal to two full years' work.
3. Elementary Chemistry and Physics with laboratory work.
4. Chemistry or Physics, and Solid Geometry and Plane Trigonometry.
5. Elementary Zoology and Botany with laboratory work.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, pass the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

CANDIDATES FOR ADVANCED STANDING

must pass a satisfactory examination in the requisite number of courses as well as in the preliminary studies.

At a meeting of the Board of Directors of the University, held in November, 1874, the following resolution was adopted :—

Resolved, On recommendation of the Faculty, and with a view to the promotion of the best interests of learning and science, and for the encouragement of young men to obtain a complete education before entering upon a professional career,

That the graduates of the School of Engineering shall have *free admission* to the College Classes, either as regular or partial students, subject to the rules and regulations of the same.

SPECIAL STUDENTS.

Special students not candidates for a degree are admitted to the College upon furnishing satisfactory evidence of proper preparation for the courses selected.

All matters concerning special students are referred to a standing committee of the Faculty, and each special student is assigned to some member of the committee for advice and direction in his work.

The Standing Committee on Special Students is composed of Professors Snow, Waterhouse and Sanger. Applications should be made to Professor Snow, Chairman.

COURSES OF INSTRUCTION OFFERED IN THE COLLEGE.

The satisfactory completion of thirty-eight courses of one term each, with three recitations a week (or their equivalents), is necessary to fulfill the requirements for the degree of A. B. These courses are either prescribed or elective. For a statement of the prescribed studies for each College Year see p. 45. Studies are classed as *Courses* or *Half-courses*, according to the estimated work and value of each. In the following list half-courses are expressly designated as such; all others are full courses.

GREEK.

Professor Waterhouse. Three times a week.

1. Herodotus (selections).
2. Homer (selections). Isocrates; The Panegyric.
3. Demosthenes on the Crown; Thucydides (selections).
4. Selections from the Tragedians.
5. Selections from the Tragedians.
6. Plato (selections).

LATIN.

Professor Jackson. Three times a week.

1. Livy; Second Punic War. Books XXI-XXX.
2. Horace; Odes and Epodes; Satires and Epistles (selections).
3. Cicero; Philosophical Works (selections); Letters.
4. Plautus, Terence, Juvenal (selections).
5. Tacitus; Annals and Histories (selections).
6. Suetonius; Seneca, Moral Essays; Quintilian.
7. Seneca, Tragedies; Martial, Epigrams; Lucretius.
8. Pliny, Letters; Catullus, Tibullus, Propertius (selections).

ENGLISH.

Professor Dixon and Mr. Perry.

1. The elementary laws of all writing. Canons of correct usage in language. The function of grammars and dictionaries. Analysis of sentences. English idioms—auxiliary verbs, conditional sentences, relative pronouns, etc. Literary forms—the paragraph, article, essay. The rules of letter-writing. Two hours a week.

Exercises in composition and analysis.

Elocution, one hour a week.

2. Modern English prose, especially in the departments of narrative and exposition. Framing of synopses and abstracts. Studies in Macaulay and Emerson. Two hours a week.

Elocution, one hour a week.

3. English prose from Sidney and Dryden to Arnold, Newman, and Lowell. Lectures on the development of English prose. Two hours a week.

Fortnightly compositions, with criticism, on modern every-day topics. One hour a week.

4. Modern poetry: Wordsworth, Keats, Tennyson, Browning. Sonnet literature. Two hours a week.

The laws of versification, with exercises. One hour a week.

5. Oratory as a branch of literature. The composition of an oration. Two hours a week.

Rise and growth of the English novel. Exercises in story-writing. History of journalism and the essay. One hour a week.

6. Shakespeare; his life and literary career; the quartos and folios. English and German editors and commentators; textual criticism. Critical reading of one play (1896, *Midsummer Night's Dream*). Exercises in analyzing the structure of the play, and the development and interaction of the characters. Three hours a week.

7. Spenser, Milton (1896. *Paradise Lost*, Bk. X., and *Comus*).
Pope. Two hours a week.
Philology. One hour a week.
8. Early English and dialect literature. Ballad literature.
Chaucer and Burns. Three hours a week.
- 9, 10. Elocution: Open to those who have taken the Elocution
in Courses 1 and 2. Three hours a week.

GERMAN.

Professor Heller. Three times a week.

- 1, 2. Elementary Courses. Accidence; Translation from German into English and from English into German; German Conversation. Reading: *Zschokke*, der zerbrochene Krug; *Fischer*, die wandelnde Glocke, *Leander*, Träumereien, *Storm*, Immensee.
Prescribed for Freshmen who did not present German for admission.
- 3, 4. German Syntax; Prose Composition. *Joynes-Meissner*, II.
v. *Jagemann*, Syntax and Composition; German Conversation; Reading: *Stifter*, das Heidedorf; *Freytag*, der Rittmeister von Alt-Rosen; *Meyer*, Gustav Adolfs Page, and a short comedy.
- 5, 6. Composition continued; History of German Literature: *Evans*, Abriss der d. Litteraturgesch. *Petermann*, Lesebuch. Reading: *Lessing*, Minna von Barnhelm; *Goethe*, Hermann u. Dorothea, Iphigenie auf Tauris; *Schiller*, das Lied von der Glocke, Wallenstein; Home-Reading.
- 7, 8. Literature of the nineteenth century. Reading: Works of *Heine*, *Auerbach*, *Geibel*, *Scheffel*, *Freytag*, *Schücking*, *Spielhagen*, *Heyse*, *Wildenbruch*, *Baumbach*, and *Seidel*; Essays.
- 9, 10. Introduction to the history of the German Language (Weise); Middle-High-German Grammar (Paul); Reading: Nibelungenlied; Hartmann von Aue; Walther von der Vogelweide; Ulrich von Liechtenstein (in the original).

Courses 5-10 are conducted in German, 10 is offered primarily to students of German parentage and is the basis of a four-years' course.

FRENCH.

Mr. Dumay. Three times a week.

1. Elementary Course. Pronunciation; Easy Conversation; Elementary Grammar.
2. More advanced Conversation; Study of Idioms; Translation from French into English; Grammar.
Courses 1 and 2 are prescribed for Freshmen who did not present French for admission.
- 3, 4. Grammatical Study; Translation and Letter-Writing; Conversation.
- 5, 6. French Literature of the XVI and XVII centuries, with illustrative readings. Principles of French Composition.
7. Modern Literature from the beginning of the XVIII century to 1815, with collateral reading.
8. Contemporary Literature; 1815-1892, with collateral reading.

PHILOSOPHY.

Professor Dixon. Three times a week.

Logic. Province of Logic. Terms. Extension and intension; Logic and language. Propositions and their conversion; the predicables; division and definition. The Syllogism; regular, irregular and compound conditional arguments. Fallacies and the best methods of treating them. Argument in orations and general literature.

POLITICAL ECONOMY.

Mr. Hatfield. Three times a week.

1. Principles of Political Economy. A course for beginners, using Mill's *Principles of Political Economy* as the text-book.

2. Advanced Political Economy. *Marshall's Principles of Economics.*
3. Descriptive Political Economy. A brief study of some of the practical Economic problems including the Tariff, Money, Banking and Railroads.
Open to those who have completed Course 1.
4. Financial History of the United States.
Open to those who have completed Courses 1 and 2.
5. Tariff History of the United States.
Open to those who have completed Courses 1 and 2.

HISTORY.

Professor Snow. Three times a week.

1. History of England from Edward I. to the end of the Tudor Period. Lectures and recitations.
2. History of England;—Modern Period.
3. History of France under the Bourbon Kings to the Revolution.
4. The Revolution and the Empire.
5. Mediæval Germany; The Holy Roman Empire to the Peace of Westphalia.
6. Eastern Europe since the Fall of the Western Empire.
7. Constitutional History; Constitution of the United States; Comparison of American and European Governments.
8. Elements of International Law, with Study of Treaties. Half course.
9. General European History; Review and Philosophical Discussion. Half course.

MATHEMATICS.

1. Solid Geometry. *Professor Pritchett.*
2. Plane and Spherical Trigonometry. *Professor Pritchett.*
3. Higher Algebra. *Professor Pritchett.*
4. Analytic Geometry. *Professor Engler.*
5. Differential Calculus. *Professor Engler.*

6. Integral Calculus. *Professor Woodward.*
7. Method of Least Squares. *Professor Pritchett.*
8. Differential Equations. *Professor Woodward.*
9. Quaternions. *Professor Woodward.*

APPLIED MATHEMATICS.

- 1, 2, 3. Mechanical Drawing. *Mr. Holmes Smith.*
4. Descriptive Geometry; Point, Line and Plane. Open to those who have taken Solid Geometry. *Professor Engler.*
5. Descriptive Geometry; Surfaces. Tangency. *Professor Engler.*
6. Descriptive Geometry; Intersections, Developments, Shade and Shadows. *Professor Engler.*
7. Stereotomy; Applications of Descriptive Geometry to Stone Cutting. *Professor Engler.*
8. Graphical Statics; *Professor Woodward.*
9. Mechanics. Principles of Statics. *Professor Woodward.*
10. Mechanics. Principles of Dynamics. *Professor Woodward.*
11. Mechanics. Principles of Thermodynamics. *Professor Woodward.*

PHYSICS.

Professor Nipher and Assistant.

1. Elementary Mechanics, including the mechanics of fluids. Acoustics. Laboratory work. *Professor Nipher and Mr. Kinsley.*
2. Optics. Laboratory work. *Professor Nipher and Mr. Kinsley.*
3. Heat. Laboratory work. *Professor Nipher and Mr. Kinsley.*
4. Electricity and Magnetism. Laboratory work. *Professor Nipher and Mr. Kinsley.*
Each of these four courses covers two hours a week each, of class work, and of laboratory work.
5. Laboratory instruction in Electrical Measurements. Six hours a week. *Professor Nipher.*

6. Introduction to the Mathematical Theory of Electricity and Magnetism. Three hours a week. *Professor Nipher.*
7. Dynamo-Electric Machinery. Three hours a week. *Mr Kinsley.*
8. Electrical Transmission of Power and Light. Two hours a week. *Mr. Kinsley.*
9. Mathematical Theory of Electricity and Magnetism. Four hours a week. *Professor Nipher.*
10. The same continued. Three hours a week. *Professor Nipher.*

CHEMISTRY.

- 1-2. General Descriptive Chemistry. Seven hours a week. Two lectures, two periods of laboratory work of two hours each, and one hour of weekly review. General theories of chemistry. Description of the elements and their compounds. *Professor Sanger.*

Course 1-2 must precede all others.

- 3-4. Qualitative Analysis. Six hours a week, mainly laboratory work, with three of the six hours set apart for meeting the instructor and for occasional lectures. *Professor Sanger and Mr. Cushman.*

- 5-6. Quantitative Analysis. Elementary. Six hours a week, mainly laboratory work, with two of the six hours set apart for meeting the instructor and for occasional lectures. Fundamental principles of gravimetric and volumetric analysis. *Mr Cushman.*

Course 5-6 should be preceded by course 3-4, but may be taken with course 3-4 at the pleasure of the instructor.

- 7-8. Quantitative Analysis, Advanced. Six hours a week of laboratory work. Analysis of commercial and industrial materials and products. Sanitary examination of foods, water, etc. Gas Analysis. A knowledge of German is desirable. *Professor Sanger, Adjunct-Professor Hunicke, and Mr. Cushman.*

Course 7-8 must be preceded by course 5-6.

- 9-10. Carbon Compounds. Three to six hours a week. Lectures on the syntheses of the carbon compounds. Preparation of compounds illustrative of general synthetic methods. A knowledge of German is essential. *Professor Sanger.*
Course 9-10 must be preceded by courses 3-4 and 5-6.
11. Chemical Philosophy. Two hours a week for the second half-year. Lectures and recitations. *Mr. Cushman.*
12. Advanced Inorganic Chemistry. Two hours a week for the second half-year. Lectures on the history of chemistry and discussion of chemical theory. *Professor Sanger.*
Course 12 must be preceded by courses 3-4, 5-6, 9-10, and 11.
- 13-14. Crystallography and Descriptive Mineralogy. Three hours a week. Lectures and conferences. *Adjunct-Professor Hunicke.*
15. Determinative Mineralogy. Three hours a week for the first half-year. Lectures and laboratory work. Analysis of minerals by means of the blow-pipe. *Adjunct-Professor Hunicke.*
Course 15 must be preceded by course 13-14.
16. Assaying. Three hours a week for the second half-year. Laboratory work. *Adjunct-Professor Hunicke.*
Course 16 must be preceded by courses 3-4, 13-14, and 15.
17. General Metallurgy. Three hours a week for the first half-year. Lectures. Processes, types of furnaces, fuels, preparation of ores, refining. *Adjunct-Professor Hunicke.*
Course 17 is intended primarily for chemists, and must be preceded by courses 3-4, 5-6, and 13-14.
- 18-19. Metallurgy. Three hours a week. Lectures. General metallurgy and special processes used in the production of iron, steel, copper, lead, zinc, silver, gold, etc. *Adjunct-Professor Hunicke.*
Course 18-19 is intended primarily for metallurgists, and must be preceded by courses 3-4, 5-6, and 13-14.

- 20-21. Chemical Technology. Three hours a week. Lectures. Description and discussion of commercial processes. Visits to manufactorys. *Adjunct-Professor Hunicke.* Course 20-21, must be preceded by courses 3-4, 5-6, 7-8, and 9-10.
- 22-23. Research in Theoretical Chemistry. Laboratory work and reference to chemical journals. Investigation of some subject in inorganic or organic chemistry. Preparation of thesis or monograph for publication. *Professor Sanger.*
- 24-25. Research in Applied Chemistry. Laboratory work and reference to chemical journals. Investigation of some subject of direct practical value in sanitary chemistry, technical chemistry or analytical chemistry. Preparation of a thesis or monograph for publication. *Professor Sanger, Adjunct-Professor Hunicke and Mr. Cushman.*

BOTANY.

Professor Trelease and two Assistants.

1. Elementary Morphology and Organography, with reference to Ecology and Systematic Botany. Lectures and demonstrations by the Professor, as a full study through the first term.
2. Elementary Anatomy and Phanerogamic Botany. Laboratory work under the General Instructor, as a full study through the second term.
3. Synoptical Study of the Cryptogams. Laboratory work under the Instructor in Cryptogamic Botany, as a full study through the first term, followed, if desired, by:—
4. A special study of some group of Cryptogams, as a full study through the second term.
5. Methods of Vegetable Histology. Laboratory work under the General Instructor, as a full course through the first term.

6. Histology and Morphology of the Higher Plants. Laboratory work under the General Instructor, as a full study through the second term, accompanied, if desired, by:—
7. A laboratory study of the minute anatomy of the lower Cryptogams, under the Instructor in Cryptogamic Botany, as a full course for the same term.
8. Technical Microscopy of Timbers. Laboratory work under the Professor, as a half course during the first term.
9. Economic Botany. Lectures by the Professor, supplemented by laboratory demonstrations by the Instructors, as a full course for the second term.
- 10-11. Applied Mycology. Laboratory work under the Instructor in Cryptogamic Botany, as a full course extending through the year.
- 12-13. Garden Botany. Laboratory study of cultivated plants, at the Botanical Garden, under the Director and his Assistants for one or two terms.
14. Vegetable Physiology. Laboratory work under the General Instructor, as a full course for the first term.
15. Bacteriological Technique. Laboratory work under the Instructor in Cryptogamic Botany, as a half-course during the first term.

It is intended that course 1 shall always be followed by course 2, the two being preparatory to other electives. For the present, unless especial reason to the contrary exists, courses 1 and 2 only will be given each year, the remaining electives being offered in alternate years, as follows:—

As offered for 1895-6.

First term, courses 1, 5, 8, 10, and 15.

Second term, courses 2, 6, 7, and 11.

As offered for 1896-7.

First term, courses 1, 3, 12, and 14.

Second term, courses 2, 4, 9, and 13.

Students who have taken courses 1 and 2, or have had their

equivalent elsewhere, are admitted to any of the other elementary electives which can be taken without conflict with other University work; but students who desire to equip themselves as botanists are advised to take the electives as nearly as possible in the order in which they are offered, and on the completion of the elective courses should expect to devote not less than ten hours per week through an entire year to some piece of research work, selected under the advice of the Professor of Botany.

Special post-graduate study or investigation is planned to meet the needs of students, so far as the facilities of the School of Botany and the Botanical Garden permit.

ASTRONOMY.

Professor Pritchett.

1. Descriptive Astronomy. Lectures and recitations, with occasional work at the Observatory.
2. Practical Astronomy. Applications of Astronomy in determination of Time, Latitude, Longitude and Azimuth. Two hours recitation, two hours observatory work. Spherical Trigonometry will be required for entrance to either of these courses.

The following courses are intended to form the basis of two years professional training in Astronomy.

3. Spherical Astronomy: Spherical co-ordinates and changes of reference planes. Text — Brunnow's Spherical Astronomy. Three hours per week.
4. Application of Spherical Astronomy with use of filar micrometer and Equatorial telescope. Two hours lectures and two hours observatory work.
5. Theory and Computation of Orbits. Three hours lectures or recitations.
6. Theory of the Spectroscope and Study of Solar Physics. Two hours lecture work and two hours observatory work. For courses 3, 4, 5, and 6, preparation in Mathematics is required.

ZOOLOGY, GEOLOGY, MINERALOGY.*Adjunct-Professor Hambach.*

- 1, 2. Zoölogy. Lectures and Laboratory demonstrations.
3. Geology. Half course.
4. Elementary and Systematic Geology.
5. Lithology.
6. Economic Geology.
7. Palæontology.
8. Petrography.

COLLEGE STUDIES.

FRESHMAN YEAR.

Prescribed Studies.

English, courses 1 and 2, three times a week.
German, courses 1 and 2, or **French**, courses 1 and 2, for those who do not present both of these languages for admission. Three times a week.

Elective Studies.

In addition to the prescribed studies, every Freshman is required to take elective studies amounting to *six full courses*. No Freshman may elect more than one course in the same subject without the consent of the Dean.

The following courses are open to Freshmen:—

- Greek**, 1, 2.
- Latin**, 1, 2.
- English**, 1, 2.
- German**, 1, 2.
- French**, 1, 2.
- History**, 1, 2.
- Mathematics**, 1, 2, 3.
- Applied Mathematics**, 1, 2, 4, 5.
- Physics**, 1, 2.
- Chemistry**, 1, 2.
- Botany**, 1, 2.

A Freshman who is qualified to take a higher course in any study named above may do so, with the permission of the instructor of the course and the Dean of the College.

SOPHOMORE AND JUNIOR YEARS.

The prescribed work of the Sophomore and Junior years consists of: —

English, courses 3, 4, and 5, 6.

Besides the prescribed courses every Sophomore and every Junior is required to take *eight elective courses*, or an equivalent amount of courses and half courses.

SENIOR YEAR.

Eight courses, all elective, are required for the Senior year.

ADVISERS.

A Standing Committee of five members of the Faculty is appointed annually to advise students of the College in the choice of studies and to assist them in making a wise arrangement of this work. The Committee for the year 1895-96 will consist of Professors Snow (Chairman), Waterhouse, Pritchett, Trelease, Heller.

CHOICE OF STUDIES.

Every student is required to give notice in writing to the Dean of the College on the first day of each term of his choice of studies for that term.

Changes may be made only by permission of the Advisers, to whom application must be made in writing, with a full statement of reasons.

No student will be allowed to elect any course for which his previous training has not fully prepared him.

ADMISSION TO THE SCHOOL OF ENGINEERING.**TIME OF ADMISSION.**

Candidates for admission to the School of Engineering will present themselves for examination on Monday, June 15, 1896, in room No. 8, east wing of University Hall, at 9 o'clock A. M. A second examination will be held on Tuesday and Wednesday, September 22 and 23, for such candidates as cannot be present in June.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other institutions are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

- I. *Elements of English.* The candidate will be asked to write an essay on some familiar subject. The essay must exhibit neat and readable handwriting; correct spelling and punctuation; the proper construction of sentences; clearness and conciseness of expression.
- II. *Algebra,* through radicals and equations of the second degree.

III. *Elementary Plane and Solid Geometry.* Wells's or Wentworth's Geometry or an equivalent.

IV. *Languages.* Two years of either French or German; or, one year of French and one year of German; or, two years of Latin and one year of either French or German.

[In June, 1897, and thereafter, the Language requirement will be as follows:—

Modern Language. Either French or German may be presented. The candidate must be able to read prose at sight and to translate simple English sentences into grammatical French or German. This includes what is given under German or French Courses 1 and 2 on pages 35 and 36 in this catalogue.]

V. *History* of the United States and of England, such as is found in any histories intended for the use of high schools.

VI. *Elementary Physics*, or *Elementary Chemistry*. See full particulars below.

VII. *Drawing.** (a.) The ability to make a free-hand drawing in outline of a group of simple objects.
(b.) A knowledge of the use of drawing instru-

* The specifications as given above will be adhered to for the examinations of June and September, 1896. Specimen sheets showing the character of the work required under each head, a, b, and c, will be furnished on application to Mr. Holmes Smith, Washington University. After the year 1896-7, requirement "b" will be changed so as to read:—

(b.) A knowledge of the use of drawing instruments, of elementary plane geometrical drawing, and of plane projection as applied to simple solids.

ments and of geometrical drawing, including the construction of polygons and tangent circles.
 (c.) Simple free-hand lettering.

For Elementary Chemistry. Examination on such books as Remsen, "Introduction to the Study of Chemistry," or Shepard, "Elements of Chemistry," and the presentation of a *laboratory note book* in which the record of at least thirty experiments has been kept by the student.

For Elementary Physics. Examination on such books as Gage's "Introduction to Physical Science;" or Appleton's "School Physics;" and the presentation of a note book in which the record of at least *forty* experiments made by the student is given with sufficient completeness to be self-explanatory. Such works as Hall and Bergen's "Text Book of Physics" will be found useful in laying out the experimental work. At least one-third of the experiments should be quantitative in their character.

All examinations are in writing and together occupy two days.*

Sets of old EXAMINATION QUESTIONS will be sent on application. These questions will be very helpful, particularly in mathematics, drawing, and modern languages.

- * The instruments required in the examination in drawing are:—
- (a) A pencil and eraser.
- (b) A pair of compasses and a triangle.
- (c) An ordinary writing pen.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his opinion, pass the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

Candidates for the Freshman Class must be at least sixteen years old.

Candidates for the Sophomore Class must be at least seventeen years old, and must pass a satisfactory examination upon the studies of the Freshman year. Similar requirements will be made of students desiring to enter the higher classes.

Graduates of other institutions who can satisfy the Faculty that they will cause no embarrassment, may be admitted as Special Students in this Department. For studies in a professional course, the special student must be a graduate of a respectable institution in a similar course of study.

At a meeting of the Board of Directors of the University held in November, 1874, the following resolutions were adopted:—

Resolved, on recommendation of the Faculty, and with a view to the promotion of the best interests of learning and science, and for the encouragement of young men to obtain a complete education before entering upon a professional career,

That the graduates of the College of the University

shall have *free admission* to the the classes of the School of Engineering, either as regular or partial students, subject to the rules and regulations of the same.

COURSES OF STUDY IN THE SCHOOL OF ENGINEERING.

The regular CURRICULA of study and instruction in this department are six in number, viz. : —

- I. In Civil Engineering.
- II. In Mechanical Engineering.
- III. In Electrical Engineering.
- IV. In Mining and Metallurgy.
- V. In Chemistry.
- VI. In Science and Literature.

The characteristic work of each curriculum is, of course, the technical instruction in the lecture room and laboratory; but a large amount of general training is required as an essential basis for the technical work. Upon the breadth of this general training and its thoroughness depends largely the success which attends professional study and the later professional practice.

Accordingly, the general studies will be rigidly insisted upon. Experience abundantly proves that all attempts to narrow the field and belittle the character of this general training lower the value and dignity of a professional degree.

The general and technical courses which combine to make up the several curricula are given below.

DETAILS OF INSTRUCTION IN THE SCHOOL OF ENGINEERING.

N. B. Unless otherwise stated, all "Courses" continue for one term, or half the school year.

ENGLISH.

Courses 1 and 2 as given on page 34.

Professor DIXON and Mr. PERRY.

GERMAN.

Courses 1, 2 and 3, as given on page 35.

Courses 4, 5 and 6, for advanced students.

Professor HELLER.

FRENCH.

Courses 1, 2 and 3, as given on page 36.

Courses 4, 5 and 6, for advanced students.

Mr. DUMAY.

MATHEMATICS.

I.

Solid Geometry. (This subject is not taught in the School of Engineering as it is required in the Conditions of Admission. It is, however, taught to students in the College department.)

II.

Plane and Spherical Trigonometry. *Three hours per week.*

Professor PRITCHETT.

III.

Higher Algebra. *Three hours per week.*

Professor PRITCHETT.

IV.

Plane Analytical Geometry. *Three hours per week.*

Professor ENGLER.

V.

Differential Calculus and its Applications. *Four hours per week.*

Professor ENGLER.

VI.

Integral Calculus and its Applications. *Four hours per week.*

Professor WOODWARD.

VII.

Method of Least Squares. *Two hours per week.*

Professor PRITCHETT.

VIII.

Differential Equations. *Two hours per week.*

Professor WOODWARD.

APPLIED MECHANICS.

I.

Graphical Statics. Stress Diagrams for Frames, Trusses and Bridges analyzed and drawn to scale. *Two lectures per week.*

Professor WOODWARD.

II.

General Principles of Statics and Dynamics with illustrative examples. *Four hours per week.*

Professor WOODWARD.

III.

Rotation of Rigid Bodies; Character and distribution of Stress. Strength and Stiffness of Girders and Shafts. *Four hours per week.*

Professor WOODWARD.

IV.

Kinematics, Mechanism, including the general theory of transmission of energy by Gearing, Liquids, Belts, etc. *Four hours per week.* Professor WOODWARD.

V.

Elementary Principles of Thermodynamics. Efficiency of Compressed air. Problems of Evaporation and Refrigeration. *Two hours per week.* Professor WOODWARD.

DRAWING.

I.

Freehand Drawing in outline of groups of objects, both from the objects themselves and from memory. The accurate observation of form and its correct expression. The study of proportions and the laws of perspective involved in freehand drawing from objects.

Practical Freehand Lettering for use on plates and working drawings.

Geometrical Drawing. Those problems in construction that are needed in the study of descriptive geometry, machine design, etc. *Six hours a week.* Mr. HOLMES SMITH.

II.

Geometrical Drawing continued.

Machine Drawing. The making of working drawings from actual measurement of machines and parts of machines. The making of Tracings and Blue Prints. *Six hours a week.* Mr. HOLMES SMITH.

III.

Freehand Drawing and Shading from objects with pencil, pen and ink, and wash. The study of light and shade as a means of expressing form on a flat surface. The methods of suggesting in sketches the character of different materials.

Isometric Drawing from actual measurement or from sketches.

In this work the drawings are line shaded. *Four hours a week.*

Mr. HOLMES SMITH.

IV.

The essentials of Linear Perspective with problems.

The use of water color. *Two hours a week.*

Mr. HOLMES SMITH.

DESCRIPTIVE GEOMETRY.

I.

General problems of Points, Lines and Planes; Higher Curves;
Single Curved, Double Curved and Warped Surfaces.
Three hours per week.

Professor ENGLER.

II.

Tangency, Intersections, Shades and Shadows, Linear Perspective
Three hours per week.

Professor ENGLER.

THEORY AND USE OF TOOLS (SHOP-WORK).

I.

Joinery: Use and care of hand tools. Wood Turning: Center
and Face Plate work. *Six hours per week.*

Mr. SWAFFORD.

II.

Iron and Steel Forging: Bending, Drawing, Upsetting, Punching,
Splitting, Welding, and Tempering. *Six hours per week.*

Mr. JONES.

III.

Bench and Machine Work in Metals: Turning, Boring, Screw
Cutting, Drilling, Planing, Chipping and Filing. *Four
hours per week.*

Mr. MACFARLAND.

COURSES OF STUDY IN CIVIL ENGINEERING.

I.

Elements of Surveying, including the theory and practice of the use and adjustment of all the ordinary surveying instruments, such as the compass, level, transit, planimeter, tapes, chains, etc.; also the theory and practice of simple land surveying and leveling. *Two recitations per week, with field practice Saturday forenoon.* MR. VAN ORNUM.

II.

Topographical, Mining, and Railroad Surveying, including the theory and practice of topographical surveying by the transit and stadia method and also by the plane table; problems in laying out simple and compound curves and turnouts, the passing of obstructions, adjustment of curves, etc., in railroad surveying. *Two recitations per week, with field practice Saturday forenoon.* Mr. VAN ORNUM.

III.

Summer School of Surveying. The entire time for three full weeks, beginning the first of June, is given to actual field practice by the entire Sophomore class who have taken courses I and II, and the Juniors in Civil Engineering, who have taken course IV. This practice includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a system of triangulation and levels which forms a part of the work of the survey. A railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time, and azimuth, and various other special problems worked out practically. The map of this survey is drawn only by the civil engineering stu-

dents in the first term of the Junior year. This class goes to a suitable point at a distance from the city for this work.

Professor JOHNSON and Mr. VAN ORNUM.

IV.

Higher Surveying, including city, hydraulic, and geodetic surveying, with the principles of the construction of maps; also the principles governing the economic location of railways; also the drawing of the map of the Summer School of Surveying made the previous June. *Four recitations per week, field practice Saturday forenoon, and four hours per week in the drawing room.* Mr. VAN ORNUM.

V.

Stereotomy. Application of Descriptive Geometry to Stone Cutting, including Groined, Cloistered, and Skew Arches. *Three hours per week.*

Professor ENGLER.

VI.

The analysis of Stresses in Framed Structures, including both analytical and graphical determinations of stresses in various styles of roof trusses, and of highway and railway bridges for distributed and concentrated, fixed and moving loads. *Five recitations per week.* Mr. VAN ORNUM.

VII.

The Designing of Framed Structures. The analysis of suspension, draw, and arch bridges, and an analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs; also the preparation of drawings showing all the details of some existing iron bridge, made from actual measurements taken by the students, and complete original designs of a plate girder, of a trussed roof, and of a highway bridge. *Four recitations per week, and eight hours per week drawing-room work.* Professor JOHNSON.

VIII.

Short Course in Framed Structures. Designed for technical students not taking the course in Civil Engineering. Simple methods of analysis of stresses in framed structures, the principles governing the construction of joints, and the practical designing of a simple roof truss by the student. *Two recitations per week.*

Professor JOHNSON.

IX.

Masonry Structures. The principles and practice of building masonry foundations, retaining walls, dams, arches, chimneys, etc., together with the study of the strength of the materials involved. *Three recitations per week.*

Mr. VAN ORNUM.

X.

Engineering Materials. A review of the principles of mechanics relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of methods of testing the strength of materials and a discussion of the essential properties of the more common materials of engineering construction, such as iron, steel, wood, cement, stone, brick, etc. *Two lectures per week.*

Professor JOHNSON.

XI.

Testing Laboratory Practice. Experimental tests in the testing laboratory made by the student on the strength of the various kinds of engineering materials named in X. *Three hours per week for one year.*

Mr. VAN ORNUM.

XII.

Hydraulics. A study of the theoretical and empirical laws of the flow of water as related to orifices, weirs, pipes, canals, natural channels, etc. *Two recitations per week.*

Professor JOHNSON.

XIII.

Irrigation and Drainage. The principles and practice of modern irrigation methods, including a study of all the elements of a complete irrigation scheme, and also a study of the methods of drainage of land. *Two recitations per week.*

Professor JOHNSON.

XIV.

City Water Supply. The principles and practice governing the collection, storage, pumping, settling, filtering, and distribution of potable waters, as modified by the various conditions governing the supply, and the various demands of the city service. *Two recitations per week.*

Professor JOHNSON.

XV.

Sewerage and Drainage of Cities. The practical designing of systems of sewerage and drainage of cities, together with a study of the various methods of sewage disposal, the principles of house drainage, sanitary plumbing, etc. *Three recitations per week.*

Professor JOHNSON.

XVI.

Specifications and Contracts. The study of the principles of the law of contracts as applied to engineering work, together with typical forms of specifications governing both the commercial and the technical features of engineering construction, and of all the related documents pertaining to engineering contracts. *One recitation per week.*

Professor JOHNSON.

XVII.

Higher Course in the Strength of Engineering Materials. The elements of the theory of elasticity as applied to the strength of materials within the elastic limit, together with a study of the more elaborate special investigations in the strength and the fatigue of engineering materials, which

have been made abroad, and of the various types of testing machines in common use in this and in other countries.
Two lectures per week.

Professor JOHNSON.

XVIII.

River and Harbor Improvements. A study of the principles and of the current practice at home and abroad, in the matter of the improvement of low water navigation of inland rivers, together with the methods employed for the protection of unstable banks, and the prevention of destructive floods. Also, a study of the methods pursued in improvement works at the mouths of rivers, and in the construction of artificial harbors. *Three hours per week.*

Professor JOHNSON.

XIX.

Advanced Course in Engineering Design. The preparation of original designs for various kinds of civil engineering structures, with all the computations, plans and specifications for the same. *Six hours per week.*

Professor JOHNSON.

XX.

The Economic Design of Metallic Bridges. A study of the principles of economy involved in the designing of such structures, with the application of these principles to all the more common styles of metallic truss bridges. *Two hours per week.*

Professor JOHNSON.

XXI.

Seminary Work. The preparation of abstracts and reports on assigned subjects, the information to be found either from the direct study of the works themselves, or of descriptions of them as found in the technical library. These subjects are assigned to individual members of the class two or three weeks in advance of the date assigned for making the report, at which time the student occupies the hour in presenting the subject to the class and the

instructor. One object of this course is to enable the students to become acquainted with the best engineering literature, whether in formal monographs, or in society proceedings, or in the leading technical journals. *Three hours per week.*

Professor JOHNSON.

XXII.

Professional Thesis. An extended study or design, involving original investigation or experiment, intended to show the ability of the student to conduct an important study of this kind to a successful issue.

Under the direction of Professor JOHNSON.

FACILITIES AND APPLIANCES IN CIVIL ENGINEERING.

Surveying Instruments.—The Department of Civil Engineering is supplied with three transits for ordinary field work, one altazimuth instrument for triangulation and astronomical work, reading to ten seconds of arc on both horizontal and vertical circles, two engineer's levels, two needle compasses, one sextant, one plane table, one 300-foot steel tape standardized, with all the necessary accompanying apparatus for field and office work, such as stadia boards, stadia slide-rules, chains, tapes, signals, protractors, parallel rules, etc.

There is also a complete mining transit, adapted to the use of the stadia, which may be used for topographical work if required.

Library Models, and Drawings.—There is a well selected working library kept in the office of the department which is accessible to the Senior and Fifth year students and which they consult freely on assigned topics. There is also a large assortment of drawings of the most

interesting engineering and architectural structures at home and abroad. Many photographs and blue prints have been collected illustrating all the more common styles of bridges with their details.

The Testing Laboratory.—The facilities in the testing laboratory are very complete. A floor space of about 2,400 square feet is occupied with the following appliances: two Riehlé universal testing machines with a capacity of 100,000 lbs. and 20,000 lbs. respectively, a beam testing machine, with a capacity of 100,000 lbs. on a length of 24 feet; two beam testing machines with a capacity of 6,000 lbs. on a length of five feet with micrometer deflection measuring apparatus; a column testing machine with capacity of 1,000,000 pounds on a length of 36 feet or less; cement testing machines of the Fairbanks, the Riehlé, and the Olsen types; a complete standard set of German briquet making and testing machines and scales, with pounding apparatus; an extensometer apparatus reading to ten thousandths of an inch; one eight-horse power steam engine; one five-horse power dynamo; one planer and one lathe for iron work; one wood planer, one band saw, and one cutting off circular saw for shaping timber specimens; two drying ovens and three sets of scales; a dry kiln with steam coil and exhaust fan for drying lumber; complete sets of bench and carpenter's tools, standard gauges, scales, etc.

This is thought to be the most complete outfit of apparatus for testing the strength of engineering materials to be found in America, and it is all available for students' use.

Shop-work.—All students in the course in Civil

Engineering who have not graduated in a Manual Training School are given a full course in shop-work, extending over two years, of four hours a week. This time is given to tool work in wood, forging, and ordinary machine-shop manipulations.

COURSES OF STUDY IN MECHANICAL ENGINEERING

I.

Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work, escapements, trains of mechanism, epicyclic trains, and the efficiency of mechanisms. *Three recitations per week during the first term, and two per week during the second term.* Mr. BOEHM.

II.

Machinery. Lectures on the details of pipe fitting, on pulleys, shafting, belting, erecting machinery, dynamometers, lubrication and lubricants, and calorimetric tests of fuels. *Two lectures per week.* Professor KINEALY.

III.

Elementary Steam Engineering. An elementary discussion of thermodynamics, theory of the steam engine, types of engines, valves and valve diagrams, indicators and indicator cards, combustion of fuel, and boilers and chimneys. *Three recitations per week.* Professor KINEALY.

IV.

Mechanical Drawing. The drawing of straight line motions, pipe fittings, teeth of wheels, details of the steam engine,

link motions and valve diagrams. *Seven hours per week during one term and six hours per week during another.*

MR. BOEHM.

V.

Mechanical Laboratory. The standardization of instruments, calorimetric tests of fuels, tests of lubricants, lining up and adjusting the steam engine, the use of the indicator. *Four hours per week.*

MR. BOEHM.

VI.

Advanced Steam Engineering. The study of the details of different engines; also, the thermodynamics of heat engines. *Three recitations per week.*

PROFESSOR KINEALY.

VII.

Steam Engine Designing. The theory and practice of engine designing; and the design of an engine in detail. *Three lectures per week. Six hours per week in the drawing room for the mechanical engineers and two hours per week for the electrical engineers.*

PROFESSOR KINEALY.

VIII.

Machine Designing. Study of the principles involved in the designing of machines, including the transmission of power by shafting, gearing, belts and ropes. *Two recitations per week.*

PROFESSOR KINEALY.

IX.

Steam Boiler and Chimney Designing. The theory and practice of boiler and chimney designing, and the design in detail of a boiler and a chimney. *Two lectures per week and eight hours per week in the drawing room.*

PROFESSOR KINEALY.

X.

Hydraulic Machinery. The theory of the operation of pumping machinery, water wheels, and turbines. *One hour per week.*

PROFESSOR KINEALY.

XI.

Mill Engineering. Mill and factory construction and slow burning construction. *Three lectures per week during a part of one term.* Professor KINEALY.

XII.

Heating and Ventilating. A short course on the theory and practice of heating and ventilating buildings. *Three hours per week during a part of one term.* Professor KINEALY.

XIII.

Mechanical Laboratory. Taking indicator cards, valve setting, efficiency tests of the steam and gas engines, boiler tests, chimney gas analysis, and visiting manufacturing establishments. *Eight hours per week.* Mr. BOEHM.

XIV.

Heating and Ventilating, Refrigeration. A study in detail of the various systems of heating and ventilating buildings; and an elementary discussion of refrigeration and refrigeration machinery. *Five hours per week.*

Professor KINEALY.

XV.

Designing. Designs of shops and factories; power plants; and heating and ventilating systems. *Eight hours per week.* Professor KINEALY.

XVI.

Mechanical Laboratory. Special investigations. *Eight hours per week.* MR. BOEHM.

XVII.

Gas and Petroleum Engines. Study of gas and petroleum engines. *Five hours per week for part of one term.*

Professor KINEALY.

XVIII.

Power Transmission. Study of the transmission of power by air and water. *Five hours per week for part of one term.* Professor KINEALY.

XIX.

Railway and Marine Engineering. Short course on the study of the locomotive and marine engines. *Five hours per week for part of one term.* Professor KINEALY.

XX.

Thesis. The preparation of a paper containing a critical review of some mechanical construction, or a complete mechanical design. *Fifteen hours per week.* Professor KINEALY.

XXI.

Mechanical Laboratory. Short course for the students in civil engineering. *Two hours per week.* MR. BOEHM.

APPLIANCES FOR INSTRUCTION IN MECHANICAL ENGINEERING.

The Department of Mechanical Engineering is well provided with drawings and photographs illustrating the best practice in all branches of mechanical engineering, including a large number of drawings of the machinery of new ships for the U. S. Navy, and examples of the best practice in the construction of locomotives, stationary engines, and machine tools. A small but modern and carefully selected technical library, to which additions are constantly being made, is maintained in connection with this Department, and students have access to a number of the best technical journals.

For experimental or laboratory work the Department is provided with a steam engine, a Westinghouse air com-

pressor, a Bogart gas and gasoline engine, a Carpenter steam calorimeter, a pair of Crosby indicators, a planimeter, a tachometer, a Thompson coal calorimeter, a pyrometer, a complete set of apparatus for testing lubricants, a standard gas meter, a standard test gauge, a Prony brake, thermometers, revolution counters, and such tools as are necessary for the proper use of the above. The laboratory is lighted by electricity and gas, and is well supplied with water, gas and steam.

The mercury column and other apparatus belonging to the Department of Physics is at the service of the students of this department when needed for conducting experiments.

Tests of materials are made in the extensive Testing Laboratory under the direction of the Professor of Civil Engineering.

The students (in case they have not already taken a full course in Manual Training*) have also the advantage of the well equipped shops of the St. Louis Manual Training School, in which they receive a training in the use and care of metal and wood-working tools and machinery. The training in the shops is of great help to the students in designing. The students also make some use of the University boilers in making boiler tests.

* Though a preliminary course in Manual Training is not "required" in the conditions of admission it is strongly recommended that Manual Training enter into the preparatory course.

PHYSICS AND ELECTRICAL ENGINEERING.

- I. Elementary Mechanics, including the Mechanics of Fluids.
Two lectures or recitations and two hours of laboratory work per week. Professor NIPHER and Mr. KINSLEY.
- II. Optics. *Two lectures or recitations and two hours of laboratory work per week.*
Professor NIPHER and Mr. KINSLEY.
- III. Heat. *Two lectures or recitations and two hours of laboratory work per week.*
Professor NIPHER and Mr. KINSLEY.
- IV. Electricity and Magnetism. *Two lectures or recitations and two hours of laboratory work per week.*
Professor NIPHER and Mr. KINSLEY.
- V. Laboratory instruction in Electrical Measurements, including measurement of resistances, E. M. F. of batteries, the calibration of ampèremeters and voltmeters, electrolytic measurements, magnetic determinations, heating effect of currents, electrical determination of Joule's equivalent. *Six hours per week.*
Professor NIPHER.
- VI. Introduction to the mathematical theory of Electricity and Magnetism, including the theory of Potential; capacity of bodies; energy of electrical systems; electrometers and electrostatic voltmeters, theory of magnetic measurements, magnetic fields due to electric currents, electrical induction, theory of dynamos and electric motors, alternating currents, tri-phased systems. *Three hours per week.* Professor NIPHER.
- VII. Dynamo-electric Machinery, including a discussion of the theory of series, shunt and compound dynamos and motors, conditions of efficiency of dynamos and motors, conditions of economic operation, transformers and transformer systems, electric lighting stations, electric railways, power stations, and secondary batteries.

Three hours per week of lecture, four hours per week of laboratory work and six hours per week of designing.

Mr. KINSLEY.

VIII. Electrical Transmission of Power and Light, including the designing of machinery for specific output and economy, with tests of dynamos, motors, transformers, electric lamps and engines. *Two hours per week of lectures, with eight hours of laboratory work and eight hours of designing.*

Mr. KINSLEY.

IX. Mathematical theory of Electricity and Magnetism. *Four hours per week.*

Professor NIPHER.

X. The same continued. *Three hours per week.*

Professor NIPHER.

LABORATORIES AND APPARATUS.

The *Electrical Engineering Laboratory*, maintained in connection with the chair of Physics, and of which all students in this Department make extensive use, contains, amongst other apparatus, a high speed Buckeye Engine of twenty horse power; two Gramme dynamos, the one being a series and the other a shunt-wound machine; smaller motors of various types; voltmeters, ampèremeters and galvanometers of various types and capacities; a Brackett cradle-ergometer upon which one dynamo is mounted and by which the power applied to it can be measured; a Wheatstone bridge; a Prony brake; a Siemens electro-dynamometer; a mercury column fifty feet in height, which is arranged for testing steam gauges and indicator springs at any temperature, and a compression air-pump capable of working to twenty atmospheres.

The rooms are wired conveniently for practical measurements upon the electric plant, and for the measure-

ment of candle power of lamps. The alternating current from the public mains of the Missouri Electric Light and Power Company is carried to the laboratory switchboard, and is thus available for experimental work.

THE COURSES OF STUDY IN MINING AND METALLURGY.

The greater number of special "Courses" in this department are, from their very nature, included under the head of CHEMISTRY, and are given in detail on pages 39, 40, and 41, to which the reader is referred.

Certain subjects, however, strictly professional in character and not elsewhere entered, are given below as belonging peculiarly to

MINING ENGINEERING.

I.

Drawing: Plans and sections of Mines and Mining Machinery.
Four hours per week. Professor HUNICKE.

II.

Drawing: Plans of Furnaces. *Four hours per week.*
Professor HUNICKE.

III.

Mining: Mine Surveying Perspecting, Drifting, Timbering, Stoping. *Three hours per week.* Professor HUNICKE.

IV.

Designing: Mining and Metallurgical Plants with general and detail drawings. *Eight hours per week.*

Professor HUNICKE.

V.

Mining: Haulage, Hoisting, Drainage, Ventilation. *Three hours per week.*

Professor HUNICKE.

VI.

Ore Dressing: *Three hours per week.* Professor HUNICKE.

VII.

Designing: Mining and Metallurgical Plants. Preparation of a Thesis. *Eight hours per week.* Professor HUNICKE.

REMARKS UPON THE COURSE IN MINING AND METALLURGY.

This branch of the School of Engineering was organized in September, 1871, and has been in full operation since that time. Its object is to supply means for acquiring a thorough knowledge of the theory and practice of operations relating to mining and metallurgy.

The studies during the first year are the same as in the other engineering courses, somewhat general in character, preparatory to the special work of the courses in Mining and Metallurgy, to which the remaining three years are chiefly devoted. The course is so laid out as to give a very comprehensive course in the theory and practice of Mining, Ore-dressing and Metallurgy, Analytical and Technical Chemistry and Economic Geology, in four years

time, when the degree of "Bachelor of Science in Mining Engineering" is given. In the fifth or graduate year, the time is mainly taken up with advanced work and a more detailed study of the professional branches, and in the preparation of an elaborate graduating thesis, on the successful completion of which the degree of "Engineer of Mines" is given.

The course enables those students who can only spend four years at college, to satisfactorily complete a thorough course in mining and metallurgy that is founded on a broad foundation of General and Constructive Engineering, Geology and Chemistry, in four years time. By taking the fifth year, the student is enabled to work in the direction of his chosen field. The two general directions that he may follow are, either coal and iron, or metal mining and metallurgy.

The plan of instruction includes lectures and recitations on various subjects pertaining to the course; practical work in the Physical, Chemical, Assay and Petrographic Laboratories; field work in Geology; projects, estimates and plans for the establishment of mines and metallurgical works; examination of and reports on mining, smelting and manufacturing establishments.

THE ASSAY LABORATORIES

are completely furnished with 16 wind and 7 muffle furnaces, and everything necessary for practical work in the assay of ores of lead, silver, gold, iron, tin, etc.; and volumetric apparatus for the assay of silver coin and bullion by the wet methods.

VISITS TO MINES, WORKS, ETC.

Every opportunity is afforded the student through the term for visiting and examining the various mines, smelting and manufacturing establishments in the vicinity, with which St. Louis is exceptionally favored. No other mining school in the United States enjoys such a variety and number of mining and metallurgical plants as are to be found in the immediate vicinity of St. Louis, and full advantage is taken of the very valuable opportunity thus offered of combining the study of theory with the practice.

GEOLOGICAL EXCURSIONS

are frequently make about St. Louis, as the immediate neighborhood is very favorable for the study of structural, economic and historic geology.

THE COLLECTIONS

for the illustration of the lectures, and which are accessible to the students. comprise a very complete series of models and natural crystals for the study of crystallography; an extensive series of the common and rarer minerals; a large suite of ores, coals, fireclays, building-stones and petroleums to illustrate the occurrence of the useful substances; a very complete collection of rocks; a very large series of specimens to illustrate paleontology and zoology; tools, models, safety-lamps, and other mining appliances; samples and products illustrating ore-dressing practice; and a very complete suite of metallurgical products. There is also a collection of

about 1,200 working drawings and blue-prints representing the present practice in Mining, Ore-dressing and Metallurgy, that are used for illustration in the class-room work.

COURSES OF INSTRUCTION IN CHEMISTRY.

A detailed statement of the "Courses" has already been given on pages 39-41.

The following remarks upon the work required for degrees in this department will show the *rationale* of the Curriculum.

The first year is devoted to laying a solid foundation in chemical theory, illustrated by a large amount of laboratory work. The student is made to depend on himself as much as possible, and this idea is also carried out in all the practical work.

In the second year the student takes up the qualitative analysis of simple and complex substances, which is taught in such a way as to increase the theoretical and practical knowledge of general chemistry which is so much needed in future work. In the second year also, the principles of quantitative analysis are thoroughly taught, and instruction is given in the recognition of minerals by crystalline form and outward characteristics.

Quantitative analysis is continued through the third year, and is devoted to methods for the analysis of industrial and commercial material, sanitary examination of foods, water etc., and to gas analysis. The study of the carbon compounds is taken up during this year, by lectures on syntheses and laboratory work in preparation

of organic compounds. The analysis of minerals by means of the blow-pipe is taught during the first term, and in the second term a brief course in chemical philosophy is given.

In the fourth year the student is prepared to put his theoretical knowledge to use. Instruction during this year is largely in the form of investigation on the part of the student, who is taught to look up methods of analysis and preparation, and to devise methods for solving an original problem. Reference books will be consulted in English and German, and methods will be taken from American, English, and German periodicals. A special subject for investigation, leading to a Thesis, will be assigned. In addition to the research work, lectures are given in metallurgy and chemical technology. In the latter course, the methods and economics of commercial processes are discussed, and opportunity is given for visits to manufacturing establishments. In this year there is also a short course on assaying, and an advanced course on chemical history and theory.

In the fifth year the work consists entirely of research. A subject in theoretical or applied chemistry is assigned for investigation, and the student works independently, consulting the instructor only when necessary. The results of the investigation are embodied in a thesis, and if of sufficient value, are published in some chemical journal.

It may be said in general of the Department that it aims to turn out practical chemists, well grounded in theory, who are fitted to take positions in any manufactory, or to become teachers.

CURRICULA,

Showing the distribution of the above "courses" for different years in the several professional departments.

CURRICULUM FOR ALL DEPARTMENTS.

FRESHMAN YEAR.

FIRST TERM.

Mathematics	II	Chemistry	I
Physics	I	English	I
French or }	1 or 3	Drawing	I
German			

SECOND TERM.

Mathematics	III	Chemistry	2
Physics	II	English	2
French or }	2 or 4	Drawing	II
German			

VACATION WORK.

Preparation of a "Summer Report."*

* This Report should be written on standard letter paper with suitable "pen-and-ink" or "instrumental" drawings interleaved. The subject of the Report should be some simple construction which during the summer actually came under the writer's personal observation, and, if possible, in which the writer took part. A few days of work would give the writer all the facts and experience needed for the preparation of the Report. Books are not to be consulted, nor is the imagination to be drawn upon. The text may vary between eight and twelve pages.

The Report should always be handed to the Dean on the morning of the first day of the fall term; it will enter into the records as a part of the Sophomore year.

I. CURRICULUM IN CIVIL ENGINEERING.

STUDENTS WHO COMPLETE FOUR YEARS OF THIS WORK WILL RECEIVE THE DEGREE, "BACHELOR OF SCIENCE IN CIVIL ENGINEERING;" THOSE WHO COMPLETE THE FIVE YEARS WILL RECEIVE THE DEGREE, "CIVIL ENGINEER."

(For Conditions of Admission, see pp. 47 and 48.)

(For the Studies of the Freshman year, see p. 76.)

SOPHOMORE YEAR.

FIRST TERM.

Mathematics	IV	Descriptive Geometry	I
Physics	III	Surveying	I
French or }	3 or 5	Drawing	II
German }		Shop-work	I

SECOND TERM.

Mathematics	V	Surveying	II
Physics	IV	Drawing	IV
Mechanics	I	Shop-work	II
Descriptive Geometry	II		

VACATION WORK.

Summer School of Land Surveying. Civil Engineering, III.

JUNIOR YEAR.

FIRST TERM.

Civil Engineering	IV, V	Electricity and Magnetism	V
Mineralogy (Chemistry)	14	Shop-work	III
Applied Mechanics	II		

SECOND TERM.

Civil Engineering	VI, X	Applied Mechanics	III
Mechanical Engineering	III	Electricity and Magnetism	VI

SENIOR YEAR.

FIRST TERM.

Civil Engineering,	Applied Mechanics . . .	IV
VII, XI, XII, XIII	Descriptive Astronomy* . .	1
Mechanical Engineering. XXI		

SECOND TERM.

Civil Engineering,	Applied Mechanics . . .	V
IX, XI, XIV, XV, XVI	Practical Astronomy* . .	2
Mechanical Engineering X		

FIFTH OR GRADUATE YEAR.

FIRST TERM.

Civil Engineering,	Electrical Engineering . .	VII
XVII, XVIII, XIX, XXI	Mathematics	VIII
Mechanical Engineering XIII	Political Economy† . .	1

SECOND TERM.

Civil Engineering,	Mathematics	VII
XX, XXI, XXII	Metallurgy (Chemistry) . .	18
Applied Mechanics . . VI		

II. CURRICULUM IN MECHANICAL
ENGINEERING.

STUDENTS WHO COMPLETE FOUR YEARS WILL RECEIVE THE DEGREE, "BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING;" THOSE WHO COMPLETE THE FIVE YEARS WILL RECEIVE THE DEGREE, "MECHANICAL ENGINEER."

(For Conditions of Admission, see pp. 47 and 48.)

(For the Studies of the Freshman Year, see p. 76.)

SOPHOMORE YEAR.

FIRST TERM.

Mathematics	IV	Descriptive Geometry . . .	I
Physics	III	Civil Engineering . . .	I

* See page 43.

† See page 36.

French or }	3 or 5	Drawing	III
German }		Shop-work	I

SECOND TERM.

Mathematics	V	Civil Engineering	II
Physics	IV	Drawing	IV
Mechanics	I	Shop-work	II
Descriptive Geometry	II		

VACATION WORK.

Summer School of Land Surveying. Civil Engineering, III.

JUNIOR YEAR.

FIRST TERM.

Mechanical Engineering,		Mathematics	VI
I, II, IV.		Applied Mechanics	II
Electrical Engineering . . V.		Shop-work	III

SECOND TERM.

Mechanical Engineering,		Applied Mechanics	III
I, III, IV, V		Electrical Engineering . . VI	
Civil Engineering . . VIII, X			

SENIOR YEAR.

FIRST TERM.

Mechanical Engineering,		Applied Mechanics	IV
VI, VII, VIII, XIII		Electrical Engineering . . VII	
Civil Engineering . . XI, XII			

SECOND TERM.

Mechanical Engineering,		Civil Engineering . . XI, XVI	
VIII, IX, X, XI, XII, XIII		Applied Mechanics	V

FIFTH YEAR.

FIRST TERM.

Mechanical Engineering,		Mathematics	VIII
XIV, XV, XVI		Electrical Engineering . . IX	
Political Economy* I		Astronomy†	I

* See page 36.

† See page 48.

SECOND TERM.

Mechanical Engineering,	Mathematics	VII
XVII, XVIII, XIX, XX,	Metallurgy (Chemistry) .	18

III. CURRICULUM IN ELECTRICAL ENGINEERING.

STUDENTS WHO COMPLETE FOUR YEARS WILL RECEIVE THE DEGREE, "BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING;" THOSE WHO COMPLETE THE FIVE YEARS WILL RECEIVE THE DEGREE, "ELECTRICAL ENGINEER."

(For Conditions of Admission, see pp. 47 and 48.)

(For Studies of Freshman year, see p. 76.)

SOPHOMORE YEAR.

FIRST TERM.

Mathematics	IV	Descriptive Geometry	I
Physics	III	Civil Engineering	I
French or }	3 or 5	Drawing	III
German }		Shop-work	I

SECOND TERM.

Mathematics	V	Civil Engineering	II
Physics	IV	Drawing	IV
Mechanics	I	Shop-work	II
Descriptive Geometry. .	II		

VACATION WORK.

Summer School of Land Surveying. Civil Engineering, III.

JUNIOR YEAR.

FIRST TERM.

Electrical Engineering .	V	Mathematics	VI
Mechanical Engineering,		Applied Mechanics	II
I, II, IV		Shop-work	III

SECOND TERM.

Electrical Engineering . . VI	Applied Mechanics . . . III
Mechanical Engineering,	Civil Engineering . . VIII, X
I, III, IV, V	

SENIOR YEAR.

FIRST TERM.

Electrical Engineering . VII	Applied Mechanics . . . IV
Mechanical Engineering,	Civil Engineering . XI, XII
VI, VII, VIII	

SECOND TERM.

Electrical Engineering . VIII	Applied Mechanics . . . V
Mechanical Engineering,	Civil Engineering . . . XI
VIII, IX, X	

FIFTH OR GRADUATE YEAR.

FIRST TERM.

Electrical Engineering,	Mathematics VIII
VIII, IX	Political Economy† . . . 1
Astronomy*	. . . . . 1

SECOND TERM.

Electrical Engineering . X	Mathematics VII
Mechanical Engineering . X	Applied Mechanics . . VI
Thesis.	Civil Engineering . . XVI

* See page 43.

† See page 36.

IV. CURRICULUM IN MINING ENGINEERING.

STUDENTS WHO COMPLETE FOUR YEARS WILL RECEIVE THE DEGREE OF "BACHELOR OF SCIENCE IN MINING ENGINEERING." STUDENTS TAKING A FIFTH YEAR EITHER IN THE DIRECTION OF MINING OR METALLURGY, WILL RECEIVE THE DEGREE OF "ENGINEER OF MINES."

(For Conditions of Admission, see p. 47 and 48.)

(For Studies of the Freshman Year, see p. 76.)

SOPHOMORE YEAR.

FIRST TERM.

Mathematics	IV	Chemistry	3 and 13
Physics	III	Shop-work	I
French or }	3 or 5		
German }			

SECOND TERM.

Mathematics	V	French or }	{ 4 or
Mechanics	I	German }	6
Physics	IV	Chemistry	4 and 14
		Shop-work	II

JUNIOR YEAR.

FIRST TERM.

Mining Engineering . . . I	Mathematics	VI
Chemistry	Applied Mechanics . . .	II
Geology*	Physics	V

SECOND TERM.

Mining Engineering	II	Physics	VI
Mechanical Engineering	III	Chemistry	6 and 16
Civil Engineering	VIII, IX	Geology*	6 and 7
Applied Mechanics	III		

SENIOR YEAR.

FIRST TERM.

Mining Engineering,		Mechanical Engineering	I
	III and IV	Civil Engineering	XI
Chemistry	7, 18, 20		

SECOND TERM.

Mining Engineering,		Civil Engineering	XII
	V, VI, VII	Mechanical Engineering	X
Chemistry	8, 19		

FIFTH YEAR.

The fifth year is entirely elective, with only the restriction that the work shall be in the direction of either Mining or Metallurgy. All engineering courses are open to the fifth-year student. The work in the University will consist largely of reference reading and laboratory work while opportunity is afforded of spending a large part of the time about mines and metallurgical plants to cultivate the power of observation.

Written reports will be required of all outside work, and these will be discussed with the instructor, reference being made at the same time to current literature.

At the end of the year's work, an elaborate thesis on some given subject will be required.

* See page 44.

V. CURRICULUM IN CHEMISTRY.

STUDENTS WHO COMPLETE FOUR YEARS WILL RECEIVE THE DEGREE "BACHELOR OF SCIENCE IN CHEMISTRY;" THOSE WHO COMPLETE FIVE YEARS WILL RECEIVE THE DEGREE "MASTER OF SCIENCE."

(For Conditions of Admission, see pp. 47 and 48.)

(For Studies of Freshman Year, see p. 76.)

SOPHOMORE YEAR.

FIRST TERM.

Chemistry	3, 5, and 13	Mathematics	IV
Physics	III	French or } German*	3 or 5 }

SECOND TERM.

Chemistry	4, 6, 14	Mathematics	V
Mechanics	I	French or } German*	4 or 6 }
Physics	IV	German*	

JUNIOR YEAR.

FIRST TERM.

Chemistry	7, 9, 15	Mathematics	VI
Physics	V	French or } German	See foot note.* }

SECOND TERM.

Chemistry	8, 10, 11	Scientific German . . .	
Physics	VII	French or } German	See foot note.* }

*NOTE ON THE STUDY OF FRENCH AND GERMAN.

1. Students who have taken French during the Freshman year will be required to take German during the Sophomore year unless especially excused, in which case they will continue the study of French.

2. Students who have taken German during the Freshman year will continue the study during the Sophomore year.

3. Students who have taken German during the Freshman and Sopho-

SENIOR YEAR.

FIRST TERM.

Chemistry 17 or 18, 20.

Electives — These elective courses will be selected, after consultation with the instructors, according to the direction of the student's work. Among such courses may be mentioned: Electricity, Botany, Geology, and Bacteriology.

Research Work, Theoretical or Applied.

SECOND TERM.

Chemistry 12, 16, 19, 21.

Electives — As specified under the work of the first term.

Research Work, Theoretical or Applied. Preparation of Thesis.

FIFTH OR GRADUATE YEAR.

FIRST AND SECOND TERMS.

Chemistry — Research Work in Theoretical or Applied Chemistry, Inorganic or Organic, preparatory to the thesis for the degree of "Master of Science."

Electives — Such courses as may be in the opinion of the instructors advantageous or necessary to the student's work.

more years will be required to take French during the Junior year, unless specially excused. Students who have had one year of French and one year of German in the Undergraduate Department will continue the latter during the Junior year.

4. Students excused from French or German will substitute therefor an elective course of three hours.

VI. THE GENERAL CURRICULUM IN SCIENCE AND LITERATURE.

STUDENTS WHO COMPLETE FOUR YEARS WILL RECEIVE THE DEGREE, "BACHELOR OF SCIENCE;" THOSE WHO COMPLETE THE FIVE YEARS WILL RECEIVE THE DEGREE, "MASTER OF SCIENCE."

(For Conditions of Admission, see pp. 47 and 48.)
(For Course of Study during the Freshman and Sophomore years, see pp. 76 and 77.)

JUNIOR YEAR.

The work of the Junior year is wholly Elective. Selections shall be made from what is offered in the Technical Courses for the Junior year, or from what is offered to classes in the College. The year's work consists of nine full "courses." Elections must be submitted to the deau of the School of Engineering and approved by him on or before the second day of each term.

SENIOR YEAR.

The work of this year is wholly Elective, and must be equivalent to nine "courses." Selections must be made as above.

The student must submit during the first week in June a Thesis for the degree of "B. S." (Bachelor of Science).

FIFTH OR GRADUATE YEAR.

The student must take nine "courses" from what is specified for the Senior and Fifth year classes of the School of Engineering, and he must submit a final Thesis on a scientific subject for the degree of "M. S." (Master of Science).

THE OBSERVATORY.

The work of the Observatory comes under three heads :—

1. Practical instruction is given to the Senior class in the determination of time, latitude and longitude, and the ordinary observations of spherical astronomy. Students desiring a special professional course in astronomy will be given full facilities in both reading and practice.
2. A regular scheme of scientific work is carried on. This work embraces equatorial observations of the planets and double stars, together with a large amount of meridian work.
3. As far as possible it is the intention to give in the Observatory opportunities for popular instruction and for viewing the more interesting objects.

The instrumental equipment has been greatly improved during the past three years and is now well adapted for instruction in Sidereal Astronomy. The following are the principal instruments :—

The Equatorial — Objective 6 1-2 inches, reground by Clark ; mounted in most excellent style by Warner & Swazy, Cleveland, Ohio. The mounting includes driving clock, micrometers, circles and a complete battery of eye-pieces.

The George Partridge Transit Instrument — Objective 3 inches. The instrument was made by Fauth & Co., and is equipped in the most complete manner.

Chronograph — Bond Spring Governor.

Breakcircuit Clocks — Mean-time clocks by Hohwii,

mean-time clock by Howard and Sidereal clock by Howard.

Chronometer (Breakcircuit) — By Dent.

Altazimuth — Circle 2 feet in diameter — mounted as meridian circle.

A temperature box for delicate tests in thermometric and horological work has been presented by the Waltham Watch Company of Waltham, Mass.

Several hack clocks and a large amount of electrical apparatus are used in the time service.

The time service of the Observatory has become an important feature of its work both in the city and throughout the Mississippi Valley.

The signals sent consist of automatic clock beats transmitted over the wires and give the time referred to the ninetieth meridian from Greenwich, known as "central" time. They are sent daily over many thousands of miles of wire and reach most of the railroad towns in Missouri, Kansas, Iowa, Arkansas, Illinois and the more important cities in Indiana, Ohio, Kentucky, Tennessee, Louisiana, Mississippi and Alabama.

The longitude of the Observatory has been determined from Washington by four independent exchanges involving change of observers to eliminate personal equation. Its astronomical position is now among the best determined in the country. This fact, together with its position at the center of a large telegraph system, makes it a most convenient reference point for the determination of Western and Southern longitudes.

EXAMINATIONS AND THESES.

The examinations in the Undergradutae Department are frequent and rigid, and whenever it is possible, in writing. Upon them the teachers rely chiefly for information of the progress of the students. No promotions to higher classes are made except upon conclusive evidence that the antecedent subjects have been well mastered. Reports of the standing of individual students will be made by the Deans of the Faculties to parents or guardians, if such are requested.

Every applicant for a degree, besides passing satisfactorily all his examinations, must present a thesis, an original essay, review, or investigation upon some subject, professional or otherwise, connected with the course of study he has followed.

The thesis must be accompanied with all necessary general and detail drawings. All such theses and drawings are left in charge of the University.

The object in requiring a thesis is mainly to secure evidence of the student's fitness to receive a degree; consequently a high standard of excellence is rigidly adhered to. Incidentally the theses furnish much valuable information to be used at the University by the professional students, graduates, and all engaged in professional work.

DEGREES IN THE UNDERGRADUATE DEPARTMENT.

I. IN THE COLLEGE.

The degree of *Bachelor of Arts* is conferred upon the satisfactory completion of the requisite number of courses.

II. IN THE SCHOOL OF ENGINEERING.

1. On the satisfactory completion of four years' work in any Department the degree of *Bachelor of Science* is conferred.

2. On the completion of a fifth year, degrees corresponding to the departments of study are conferred, as follows: —

- I. Civil Engineer.
- II. Mechanical Engincer.
- III. Electrical Engineer.
- IV. Engineer of Mines.
- V. Master of Science.
- VI. Master of Science.

The Bachelors degrees are in *three grades* indicated by the words *cum laude*, *magna cum laude* and *summa cum laude*, respectively.

Every member of the graduating class who has attained *ninety per cent* of the maximum mark on the general scale for the four years, may be recommended for a degree *summa cum laude*.

Every member of the graduating class (not recommended for the degree *summa cum laude*) who has at-

tained *eighty-five per cent* of the maximum mark on the general scale for the four years, may be recommended for a degree *magna cum laude*.

Every member of the graduating class (not recommended for the degree *summa* or *magna cum laude*) who has attained *seventy-five per cent* on the general scale for the four years, may be recommended for a degree *cum laude*.

No student will be recommended for a degree who has not passed all his examinations successfully and handed in such projects or theses as may be required.

The diploma fee is three dollars, payable in advance.

ADVANCED DEGREES.

The Degree of *Master of Arts* is open to all who have received from this University the degree of Bachelor of Arts.

The Degree of *Master of Science* is open to all who have received from this University the degree of Bachelor of Science, of Civil Engineer, of Mechanical Engineer, Electrical Engineer, or of Engineer of Mines, but no person will henceforth be considered eligible for the degree of Master unless he shall be a resident-graduate for at least one year, and shall devote his entire time during that period to non-professional graduate work under the direction of the Faculty.

The degree of *Doctor of Philosophy* is open to all who have received the degree of Master from the University.

The degrees of *Master of Arts*, *Master of Science* and *Doctor of Philosophy* are open to graduates of other

institutions who shall have satisfied the Faculty of the Undergraduate Department, that the courses of study for which they have received degrees are equivalent to those for which such degrees are given in Washington University.

In no case will the degree of Doctor be conferred in less than two years from the date of the Bachelor's degree; nor will the degree of Doctor or that of Master be recommended except after at least one year's residence at the University and upon satisfactory evidence, to be determined by examination, of a proper amount of study and attainment in advance of Undergraduate work.

The Faculty of the Undergraduate Department will act upon applications for advanced degrees, and will, from time to time, adopt such rules as to the examination of candidates as may be necessary.

Candidates for such degrees should present as early as the first of October of each year a written statement of their wishes as to subjects, courses of study, etc., for the approval of the Faculty.

The diploma fee is five dollars, payable in advance.

TUITION FEES.

Tuition in the Undergraduate Department is \$150 a year, payable semi-annually, in advance if required, and always before the middle of the term.

A matriculation fee of five dollars is charged to all who enter this Department, payable in advance.

DISCIPLINE.

Regularity, promptness, a cheerful compliance with every detail of the daily programme, and the manners and habits of good society are expected of every student. The records of Scholarship are based upon scholarship alone. Misdemeanors of whatever sort are met with reproof or censure; but cases of persistent neglect of any duty, or flagrant misbehavior, if such should occur, are met by temporary suspension, or dismissal from the University.

BOARD AND LODGING.

Students living at a distance from the University have no difficulty in securing rooms and board at reasonable rates. The yearly expenses may range between the following estimates, according to tastes and habits of economy:

Tuition	\$150 00 — \$150 00
Board, lodging, and washing, 9 months . . .	200 00 to 300 00
Books and instruments	10 00 " 20 00
Incidentals	15 00 " 80 00
 Total for the year	 \$375 00 to \$500 00

Books and instruments may be obtained at cost from the *Co-operative Association*, organized and managed by students of this Department.

Students wishing accommodations, and housekeepers wishing boarders, are requested to communicate with the Deans.

LECTURE FOUNDATIONS.

A Lecture Endowment Fund, amounting to twenty-seven thousand dollars (\$27,000), was created in 1875, by one of the early friends of the University, MR. WILLIAM HENRY SMITH. It was given without any restrictions, except that the fund should be increased, if practicable, by accruing interest, to \$30,000, which has been accomplished, and that no part of the principal should be expended. The income is now used for the support of lectures, with a view to the advancement of the interests of the University, and the benefit of the public.

Some of these lectures are given in the hall of the University to the general public; others, which may be called "*Class-Room*," or "*Instruction Lectures*," are given in smaller rooms, or in the laboratories, to classes limited in number according to the nature of the subject treated, and are designed to furnish to all persons instruction similar to that given in the class-room work of the College and the School of Engineering.

The beginning of a fund for the encouragement of the study of American History has been made by a gift of \$15,000, by MRS. MARY HEMENWAY, of Boston, Massachusetts.

Upon this foundation a *University Professorship of American History* has been established, and the chair was filled in 1884 by the appointment of Professor John Fiske, of Cambridge, Mass.

LIBRARY AND READING ROOM.

Room No. 10 of the East Wing, University Hall, is used as a reference library and reading room. Here all

necessary books of reference are provided, and also a good selection of periodical literature.. No attempt is made at present to gather a general library. During the year 1880 a gift of about three thousand volumes was received from the family of the late Joseph Coolidge, of Boston. The collection, known as the *Coolidge Library*, is especially rich in excellent editions of Italian and French authors, and is a very material addition to the usefulness of the library.

Through the liberality of a number of citizens of St. Louis, an arrangement has been made by which the privilege of using the Mercantile Library has been extended, under prescribed conditions, to such members of the University as may be designated by the Chancellor.

Property valued at \$66,000 has been given to the University by the late Mr. Stephen Ridgley, of St. Louis, upon the condition that the income shall accumulate until, in the judgment of the Board of Directors, the amount shall be sufficient to erect and maintain a fire-proof Library Building. The gift has been thankfully accepted upon that condition.

GYMNASIUM.

A gymnasium for the use of the Undergraduate Department has been erected and furnished at a total cost of about \$10,000. The large hall, 50x70 feet and nearly thirty feet high, heated by steam, is supplied with all necessary apparatus. While encouraging and even requiring systematic and wholesome exercise, the University does not wish to foster undue interest in the feats of athletes, and discourages exercises which involve personal

risk to the performers. All class exercises are conducted by a professional instructor.

MILITARY SCIENCE AND TACTICS.

Instruction in Military Science and Tactics is given to students in the Undergraduate Department, the Smith Academy and the Manual Training School. First Lieutenant William F. Hancock of Fifth United States Artillery, has been detailed by the War Department for duty in the University. The cadets are uniformed at their own expense, and are armed and equipped by the United States Government. The large hall in the Armory has been secured, so that the drills may be continued throughout the winter.

SCHOLARSHIPS.

One *perpetual* scholarship, founded by the payment of \$5,000 and entitling the holder to all the advantages of all the departments of the University forever, has been placed at the disposal of the Mercantile Library Association with the recommendation "that when applicants for scholarship are of equal merit, the preference shall be given to one for some mechanical pursuit."

One scholarship is also held by the St. Louis HIGH SCHOOL which entitles the ranking student of the graduating class of each year to free admission to the Undergraduate Department, in accordance with a resolution of the Board of Directors when the College was organized.

One scholarship is also held by the School Board of Kansas City for the benefit of a graduate of the Kansas

City High School. This scholarship entitles the holder (who is to be selected by the School Board) to free tuition in the College or the School of Engineering. Reports of the standing of the student will be made to said Board annually by the Dean.

A trust fund of \$20,000 has been accepted by the University from the WESTERN SANITARY COMMISSION, for the establishment of TWENTY FREE SCHOLARSHIPS in the Undergraduate Department, to be filled by children or descendants of Union soldiers who served in the late civil war. In default of such applicants, candidates will be appointed by the Chancellor of the University with the advice of the Faculty. Preference is given to those in straitened circumstances, and no student is accepted or continued who is not of good moral character, who does not sustain satisfactory examinations, or who fails to comply with the rules of the Institution.

From the same source a SUSTENTATION FUND of \$10,000 has been accepted, the income of which is expended in aid of students in straitened circumstances, giving preference always to the descendants of Union soldiers, as above.

PRIZES IN RHETORIC AND DECLAMATION.

1. A prize of \$15 to the Senior or Junior who shall pronounce the best original oration at a public contest in Memorial Hall on the evening of the third Friday in April; and to the second in merit a prize of \$10.
2. A prize of \$10 to the Sophomore or Freshman who shall best pronounce a selected declamation at the same

place and time as above; and to the second best in merit a gift of books.

3. A prize of \$15 for the best original article contributed to *Student Life* during the year 1895-96, to be awarded at the end of the year.

Prizes were awarded in 1895:—

1. For orations: A first prize to Warren Hilton of the Senior Class and a second prize to Harry Levy Stern of the Junior Class.

2. For declamations: A first prize to Sue Van Duzer of the Sophomore Class and a second prize to William Pettker of the Freshman Class.

HENRY SHAW SCHOOL OF BOTANY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

HENRY SHAW SCHOOL OF BOTANY.

ESTABLISHED JUNE 8, 1885.

ADVISORY COMMITTEE.

THE CHANCELLOR OF THE UNIVERSITY, *ex officio*.
WILLIAM G. FARLOW, M. D.
GEO. J. ENGELMANN, M. D.
GEORGE E. LEIGHTON.
WILLIAM L. HUSE.

INSTRUCTORS.

WILLIAM TRELEASE,
ENGELMANN PROFESSOR OF BOTANY.

WILLIAM H. RUSH,
GENERAL INSTRUCTOR.

ORVILLE L. SIMMONS,
INSTRUCTOR IN CRYPTOGAMIC BOTANY.

ELLEN C. CLARK,
ASSISTANT AT THE MARY INSTITUTE.

GENERAL INFORMATION.

In June, 1885, Mr. Henry Shaw, of St. Louis, authorized the Chancellor of the University to place before the Board of Directors a plan of action for the establishment of a School of Botany, as follows:—

That he proposed, with the concurrence of the Directors, to endow a SCHOOL OF BOTANY as a department of Washington University, by donation of improved real estate, yielding over \$5,000 revenue, and to place it in such relation with the largely endowed Missouri Botanical Garden and Arboretum, as would practically secure their best uses, for scientific study and investigation, to the professor and students of the said School of Botany, in all time to come.

At the meeting of the Board of Directors held June 8, 1885, the following resolutions were, therefore, offered, in grateful acceptance of Mr. Shaw's proposal:—

1. That a School of Botany be established as a special department of Washington University, to be known as the Henry Shaw School of Botany.
2. That a professorship of Botany be therein established, to be known as the Engelmann Professorship.
3. That Professor Wm. Trelease, of the University of Wisconsin, be invited to fill the same; his duties to begin at the commencement of the next academic year, September 17.
4. That said School of Botany be placed under the special care and direction of an advisory Committee, to consist of five members, of whom two shall be members of this Board, and two shall be selected outside of the Board,—the Chancellor of the University being a member *ex officio*.

This report was accepted and the resolutions unanimously adopted. The record of such action was then submitted to Mr. Shaw and approved by him.

On this foundation, the School of Botany was opened in the autumn of 1885. In his will, admitted to probate in 1889, Mr. Shaw further provided for the maintenance of the income of the School up to a certain limit, and took steps calculated to secure the proposed close co-operation between the School of Botany and the Botanical Garden.

The laboratory of the School of Botany is temporarily located at 1724 Washington avenue, and a small library, containing the usual laboratory manuals and class books, which is kept at the laboratory for reference, is added to as new books, needed for class work, appear. In addition to alcoholic and imbedded material, a small herbarium is being formed, which is intended to contain representatives of the local flora. Advanced students, some of whose work is done at the Garden, also have the privilege of consulting, under necessary restrictions, the excellent herbarium and library maintained there, and now comprising about 250,000 sheets of specimens, something over 20,000 books and pamphlets, and a large collection of wood veneers and sections; and no effort is spared to make the Garden equipment as complete as possible in any line of work taken up by competent investigators.

The instrumental equipment of the laboratory includes one microscope by Zeiss, with the necessary objectives, ranging from A A to 1-18 in. oil immersion, and accessories for spectroscopic studies and work with polarized light; twenty microscopes by Leitz, with the objectives

needed for the best work (including five 1-2 in. oil immersion lenses, one 1-16 in. oil immersion, and one 1-20 in. oil immersion), polariscope, camera lucidas of several patterns, etc.; sixteen dissecting microscopes by Bausch and Lomb; two dissecting microscopes by Leitz, one of them provided with camera lucida; a projecting apparatus for delineating objects under a low power of enlargement; a simple outfit comprising all that is necessary for ordinary bacteriological investigation; and the apparatus needed for histological work and elementary physiological experimentation. Students are provided by the laboratory with all necessary instruments and supplies (excepting razors or other cutting instruments) without charge except for breakage or other injury and for slides and cover glasses used for permanent preparations; but when alcohol or other expensive substances are used in quantity, as in work on bacteria, a special charge may be made for material used.

The working year of the School of Botany is of the same extent as that of the Undergraduate Department of the University, and is similarly divided, except for a few special teachers' classes corresponding to the usual school terms.

The work offered students is of two classes: undergraduate studies, including at present fifteen stated electives,—the equivalent of nearly three full years' work,—and post-graduate or special courses for advanced students planned in each case to meet the needs of the student. For the convenience of students, nearly all elementary instruction is given at the laboratory, near the other University buildings, where the principal instru-

mental equipment is kept, but the study of living plants, and advanced herbarium and library work, are provided for at the Garden. All courses capable of being so taught are given in the laboratory, and supplemented by lectures and quizzes by the teacher. The few lecture courses offered are illustrated wherever possible by specimens exhibiting the subject under consideration, and by wall charts and the free use of the crayon.

A list of the undergraduate electives is given above (p. 41), in the general information concerning the Undergraduate Department. Under the advice of the Dean of the College, and the professor of botany, students who wish to make a specialty of botany through their course may arrange to take all of these electives and to follow them by a piece of investigation on which a thesis is to be based, and regularly enrolled special students who are not candidates for a degree may give the greater part of their time to botanical study subject to such regulation as is prescribed by the Faculty.

Special classes, for the benefit of teachers and other persons not in attendance at the University, are formed from time to time, and such persons may be admitted to any of the regular electives on the payment of a tuition fee conformed to the general rates of the University, namely, \$15.00 for each full course (of three exercises per week during a semester), and \$7 50 for each half course (of less than three exercises per week for the same length of time). Graduates of the University and of the Mary Institute are not subject to any charge for tuition.

Graduate students who are eligible under the rules of

the Faculty to candidacy for higher degrees, if suitably prepared may elect research work in botany as their principal study for such degrees.

Applications for the formation of special classes, and all correspondence concerning the School of Botany, should be addressed to

WILLIAM TRELEASE,
Shaw School of Botany,
St. Louis, Mo.

ST. LOUIS SCHOOL OF FINE ARTS.

(ART DEPARTMENT OF WASHINGTON UNIVERSITY.)

19th Street and Lucas Place.

CALENDAR.

1895-1896.

FIRST TERM, DAY SCHOOL, begins Monday, September 23, 1895.
FIRST TERM, DAY SCHOOL, ends Saturday, December 14th, 1895.
FIRST TERM, NIGHT SCHOOL, begins Monday, November 4th,
1895.

FIRST TERM, NIGHT SCHOOL, ends Saturday, February 1st, 1896.
SECOND TERM, DAY SCHOOL, begins Monday, December 16th,
1895.

SECOND TERM, DAY SCHOOL, ends Saturday, March 14th, 1896.
SECOND TERM, NIGHT SCHOOL, begins Monday, February 3d,
1896.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 25th, 1896.
THIRD TERM, DAY SCHOOL, begins Monday, March 16th, 1896.
THIRD TERM, DAY SCHOOL, ends Saturday, June 6th, 1896.
EXHIBITION OF STUDENTS' WORK, June 9th-11th, 1896.

1896-1897.

FIRST TERM, DAY SCHOOL, begins Monday, September 21st, 1896.
FIRST TERM, DAY SCHOOL, ends Saturday, December 12th, 1896.
FIRST TERM, NIGHT SCHOOL, begins Monday, November 2d,
1896.

FIRST TERM, NIGHT SCHOOL, ends Saturday, January 30th, 1897.
SECOND TERM, DAY SCHOOL, begins Monday, December 14th,
1896.

SECOND TERM, DAY SCHOOL, ends Saturday, March 13th, 1897.
SECOND TERM, NIGHT SCHOOL, begins Monday, February 1st,
1897.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 24th, 1897.
THIRD TERM, DAY SCHOOL, begins Monday, March 15th, 1897.
THIRD TERM, DAY SCHOOL, ends Saturday, June 5th, 1897.
EXHIBITION OF STUDENTS' WORK, June 8th-10th, 1897.

ST. LOUIS SCHOOL OF FINE ARTS.

REORGANIZED MAY 22, 1879.

The establishment of an Art School upon a broad and permanent foundation has always been part of the plan of Washington University. For nearly twenty-five years Art instruction has been embodied in the course of study. In 1875, special students were admitted to the Drawing Department, and class and public lectures were given on Art History. The same year an evening school was opened.

On May 22, 1879, the Directors of the University adopted an ordinance establishing a Department of Art in Washington University, from which the following extracts are taken:—

“A Department of Art is hereby established as a special Department of Washington University, to be known as THE ST. LOUIS SCHOOL OF FINE ARTS.

“The objects of said Department shall be: Instruction in the Fine Arts; the collection and exhibition of pictures, statuary, and other works of art, and of whatever else may be of artistic interest and appropriate for a Public Gallery or Art Museum; and, in general, the promotion by all proper means of æsthetic or artistic education.”

BOARD OF CONTROL.

ELLIS WAINWRIGHT, PRESIDENT.

WINFIELD S. CHAPLIN, CHANCELLOR, *ex officio.*

J. G. CHAPMAN.

DANIEL CATLIN.

GEO. E. LEIGHTON.

CHARLES PARSONS.

CHARLES NAGEL.

ISAAC W. MORTON.

GEORGE D. BARNARD.

DAVID C. BALL.

HALSEY C. IVES, DIRECTOR, *ex officio.*

INSTRUCTORS.

HALSEY C. IVES, DIRECTOR.

HOLMES SMITH.

GEO. F. HARVEY.

EDMUND H. WUERPEL.

ROBERT BRINGHURST.

ALICE M. MORE.

CHARLES P. DAVIS.

W. H. PALMER.

C. F. VON SALTZA.

EDWARD M. CAMPBELL.

ASSISTANTS IN ELEMENTARY WORK.

LAURA P. BRYAN.

JUSTINA V. A. PHILLIPS.

NOTE — All communications in regard to the school should be addressed: ST. LOUIS SCHOOL OF FINE ARTS.

A. M. MORE,
Secretary.

GENERAL INFORMATION.

There are three terms in the year.

Students will be admitted at any time, but not for less than one term, except by special arrangement with the Director.

The school furnishes instruction in Drawing, Modeling, Painting, Artistic Anatomy, Perspective, Composition, Architectural and Mechanical Drawing.

The rooms are open for the study of drawing, painting, and modeling, every day during each term from 9 a. m. to 4:30 p. m., and for the study of drawing from the Antique and Life, mechanical drawing and modeling, three evenings in the week, from November to May.

Students may enter any class upon submitting examples of work showing the necessary skill. Applicants for admission to the evening Life Class must submit a drawing of a full length figure from the Antique or Life.

Students who can pass the necessary examination may study Modern Languages, History and Literature in classes of the Undergraduate Department of the University.

The school is fully equipped with models, casts from the Antique, *et cetera*.

The class rooms are well lighted and ventilated and excellently adapted to the purposes of the school.

The artists connected with the school as teachers have received their training in the Art Schools of Europe.

All finished work must be left in the school or if removed by special permission, must be returned before the close of the school year for final examination by the committee appointed for that purpose.

Instruction in all classes of the school is individual. Advancement of each student depends on the degree of proficiency only. Students are at liberty to work as much or as little as they desire between the hours of 9 a. m. and 4:30 p. m.

TUITION FEES.

(Payable in advance to the Treasurer of Washington University.)

* Tuition per term, with privileges of all classes and lectures	\$37 50
* Saturday class for adults and juveniles, per term	10 00
Evening Class, Antique or Sketching from Life, three times per week for term of twelve weeks	5 00
Evening Life Class, three times per week for term of twelve weeks	7 50
Evening Class, Elementary, three times per week for term of twelve weeks	5 00
Evening Class, Architectural and Mechanical Drawing, three times per week for term of twelve weeks	5 00
Evening Class, Modeling, three times per week for term of twelve weeks	5 00

* In the case of students enrolling in the school during the first term and continuing through the year the tuition fee for the third term will be remitted.

PROGRAMME.

MORNING.

Elementary Model and Object Class, daily, from 9 to 12 o'clock.
Antique Class, daily, from 9 to 12 o'clock.
Life Class (model nude) daily (except Saturdays), from 9 to 12 o'clock.

AFTERNOON.

Modeling Class, daily from 1 to 4 o'clock.
Painting Class (Still-Life, Drapery, etc.), daily, from 1 to 4 o'clock.
Head Painting Class, daily, from 1 to 4 o'clock.

SATURDAY.

Elementary Model and Object Class, from 9 to 12 o'clock.
Antique Class, from 9 to 12 o'clock.
Sketch Class (models in costumes), from 9 to 12 o'clock.
Modeling Class, from 9 to 12 o'clock.

SATURDAY JUVENILE CLASS.

Drawing from objects, from 9 to 12 o'clock.
Modeling from 9 to 12 o'clock.

NIGHT.

Life Class (model nude), Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.
Portrait Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.
Elementary Class in Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Antique Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Mechanical Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Architectural Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Modeling, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Advanced students are afforded opportunity for study from life — draped and nude models — forty hours per week.

COURSE OF INSTRUCTION

The course of instruction is as follows:—

ELEMEN TARY.

From the beginning the student is taught to draw from the object. Models are provided with simple contours such as casts from leaves, fruit, foliage, Greek vases, architectural forms, fragments of the human figure, etc., and the student is required to make outline and shaded drawings from these until he has fully mastered the difficulties due to the form and position of the object. This method is carried through all grades of the school; no copying of any kind is permitted.

ANTIQUE.

In the Antique Class the methods in use are severe and require close observation, combined with great patience and perseverance. All stump processes are discarded; all results are due to careful study and pains-taking; no chance is allowed for "accidental effects." The education of the eye is considered of greater importance than the training of the hand, not only in simple line work and the study of superficial forms, but in the general, yet no less certain, laws which underlie and distinguish the work of every great master in sculpture or painting. Little attention is paid to pictorial finish, and in many cases where a tendency toward pictorial finish

seems to interfere with the student's progress in acquiring a comprehensive method of drawing, it is rigorously discouraged.

LIFE.

Work in the Life Classes consists in drawing and painting from the living model, both draped and nude, and either from a whole or a portion of the figure, one class being entirely devoted to the study of the head. More attention is given to drawing than to painting, and students who paint are required to draw a portion of the time. In all cases a careful study of the model and a conscientious search for contours and construction, requiring continual use of the mind, are insisted upon. No effort is made to bring the students to a uniformity of method; except to the extent of instructing them to see forms as they really exist; beyond this each student is permitted to develop or follow a style of his own. Special attention is given to the importance of viewing the subject to be placed upon the paper as a whole, thus bringing the parts of the figure into proper subordination and avoiding the natural tendency to exaggerate the importance of details. Special emphasis is placed on the importance of self-reliance in the determination of the form of each portion of the figure, and of bestowing as conscientious care upon the modeling of the hand and foot as upon the expression of the face, with the purpose of training the eye to comprehend and the hand to reproduce precisely what is seen and not what may be known to exist from a general knowledge of the subject or from any preconceived ideas of whatever kind. This method is carried to the smallest

details with the intention of compelling the student to rely entirely on the natural form which is before him.

MECHANICAL AND ARCHITECTURAL DRAWING.

Classes in these subjects are only held at night. Owing to the variety of knowledge and ability possessed by the student, the instruction is largely individual.

Mechanical Drawing includes the following branches :—

- I. Plane Geometrical Drawing, Orthographic Projection, Intersection of Solids and Development of Surfaces.
- II. Drawing of Machine Details from measurement.
- III. The making of Assembled Drawings.
- IV. Tracing.

The purpose of the instruction is to teach students how to make practical working drawings, and to read them with ease.

In the Architectural Drawing Class beginners are taught how to use their instruments, and to make neat and accurate line drawings. Instruction is given in the preparation of plans, elevations and working drawings for various kinds of buildings. Advanced students are taught Perspective Drawing, and the drawing of ornamental forms for decorative purposes.

MODELING.

The work of modeling in the day class of the school is intended principally to supplement the work in drawing and painting, for the purpose of giving students a more

detailed knowledge of the form and structure of the models which they have studied in their work in drawing. In the night class the work is quite different. Most of the students are artisans who desire to acquire a knowledge of modeling for specific purposes, principally for use in exterior decoration and in architectural work. On account of this difference the work in the day class is of a more general character, and intended more to cultivate the mind, while that of the night class is necessarily special in character, and intended more particularly to give the hand skill in producing well-known forms.

LECTURES.

From time to time class and public lectures are given on subjects pertaining to art history and on other allied subjects, which it is thought may be for the benefit of the students. These lectures are arranged, not only for the purpose of instructing the student by the matter directly presented, but are intended to awaken a desire for information on a variety of subjects, literary and historical as well as artistic, and to suggest a proper course of reading for the prosecution of any line of study which individual taste may prefer. Some are purely technical and deal with the various methods employed at different times of the world's history, while others are less formal and consist simply of *conversazioni* between the instructor and the class. All are intended to give the student the latest and best information on the subjects treated, and wherever possible are illustrated either by models and objects or stereopticon views.

All lectures are given by specialists; the general subjects treated are history, literature, philosophy, anatomy, perspective, decorative design.

During the year 1894-95, the following lectures were given:—

January 28.

I. The Spirit of Realism — Mr. S. S. Curry.

January 31.

II. Tendencies in Art, or the two Salons of '94 —
Mr. S. S. Curry.

February 16.

III. Architecture as a Fine Art, with hints as to
methods of study — Mr. William A. Otis.

February 18.

IV. Tendencies in modern Art — Prof. Halsey C.
Ives.

February 23.

V. Architecture as a growth showing the relation-
ship of the styles — Mr. William A. Otis.

March 2.

VI. The Classic orders and some comparison be-
tween Greek and Roman Architecture — Mr.
William A. Otis.

March 9.

**VII. The Greeks of Byzantium and their influence on
the Architecture of the West — Mr. William
A. Otis.**

March 16.

**VIII. The Monkish Builders and the Romanesque
Architecture — Mr. William A. Otis.**

March 23.

IX. Great Sculptors of to-day — Mr. Lorado Taft.

March 30.

**X. Light and Shade in Pictures and Decorations —
Mr. W. M. R. French.**

Fourteen Lectures on Perspective by Mr. Holmes Smith.

**Also, in 1895, eight Lectures on Architecture — Mrs.
E. J. Blattner.**

COLLECTIONS.

The Museum of the school contains a carefully selected collection of about five hundred casts from antique and mediæval sculpture, and several marbles and works in bronze; also collections of examples of art work in porcelain, glass, metal and wood (originals and reproductions), and of fictile ivories and laces.

The Picture Galleries contain a collection of paintings, rare engravings and etchings. Examples are added, when possible, with a view to affording the student the best possible opportunity for pursuing the study of art history by such subjects.

Students are free to visit the galleries of the Museum at all times when open. Every possible advantage will be afforded them for work.

The collections for the use of students comprise: Several hundred autotype reproductions, from sketches, studies and paintings by celebrated masters from the fifteenth century to the present time; a set of carbon prints (numbering 1,041) illustrating the historical development of art made from various collections of the British Museum. The latter is divided into six parts: I. Prehistoric and Ethnographical Series; II. Egyptian Series; III. Assyrian Series; IV. Grecian Series; V. Etruscan and Roman Series; VI. Mediæval Series.

A Reference Library is being formed for the use of students. More than five hundred volumes have already been purchased or given for this purpose.

The reading room is open daily from 9 a. m. to 4 o'clock p. m. and on such evenings of the week as the work of the school may demand. The current art publications and monthly publications of current literature are on file.

It is the intention of the authorities of the school to add books of reference as rapidly as possible to those already acquired.

The Awards in the School of Fine Arts for the year 1894-95 were as follows:—

Mr. Ralph C. Ott, having taken the Prize in the Portrait Class (in color) last year, and also in the Saturday Sketch Class (in color), does not compete for these prizes this year.

For the same reason, Miss Laura Bryan does not compete for the Prize in the Life Modeling Class.

1. For the most satisfactory progress during the year,
The Wayman Crow Medal JOHN OLIVER SPURR.
2. For the best work in the Elementary Class,
Bronze Medal CORNELIUS M. HUIEST,
(Night School).
3. For the best work in the Antique Class,
Bronze Medal MISS EMILIE GROSS.
For excellent work in the Antique Class,
Honorable Mention THOMAS F. CULLEN.
4. For the best work in the Saturday Sketch Class (in black and white),
Bronze Medal GEORGE CHARLES AID.
5. For the best work in the Saturday Sketch Class (in color),
Book Prize MISS CORNELIA KUENNEMEL.
6. For the best work in the Portrait Class (in color),
Fifteen dollars RICHARD E. MILLER.
7. For the best work in the Modeling Class (from Life),
Silver Medal MISS HATTIE CLARK.
8. For the best work in the Modeling Class (from the Antique),
Honorable Mention EDWARD E. MARQUARDT,
(Night School).
9. For the best work in the Life Class (in black and white),
Silver Medal LEWIS C. STONE.
10. For the best work in the Life Class (in color),
Twenty-five dollars RALPH C. OTT.

11. For the best work in the Still-Life Class,
Bronze Medal MISS MODENA WILLARD.
For excellent work in the Still-Life Class,
Honorable Mention MISS EVA MESSMORE.
The Teachers' Scholarship was awarded to
RICHARD E. MILLER.

THE ST. LOUIS MUSEUM OF FINE ARTS.

The Museum of Fine Arts has a valuable permanent collection of statuary, paintings, pottery, carvings, etc., which affords the public, as well as students, an indispensable aid to the study of art. And in order that opportunity may be given for studying the methods of the different schools of painting and the works of celebrated artists, arrangements have been made for a series of fine exhibitions of oil and water color paintings, architectural drawings and engravings.

Any one desiring to become a member of the Museum of Fine Arts may do so by the annual payment of \$10.00. This membership entitles him, with his family and non-resident guests, to the privilege of visiting the Museum at all times when open to the public, and to all lectures, receptions, and special exhibitions given under the auspices of the Board of Control.

SCHOOL OF FINE ARTS.

Students enrolled from date of issue of last catalogue, January 30, 1895, to February 14, 1896.

FULL TIME STUDENTS.

NAME.	RESIDENCE.
Aid, George Charles	1715 Carroll st.
Alexander, George Harrington	3003 Magnolia av.
Ayer, Mary Lillian	5337 Cabanne pl.
Ball, Emma Frances	3308 Shenandoah av.
Barr, Arthur	3048 Olive st.
Barron, Frank X.	609 Franklin av.
Baseler, Helen Neal	8921 Page av.
Beach, Alice Mary	4548 Morgan st.
Beers, Emerson P.	Little Rock, Ark.
Bell, Cora	Hillsboro, Ill.
Berry, Ralph Whitely	West End Hotel.
Black, Charles	2800 Caroline st.
Branconier, Blanche	1962 Euclid av.
Boyer, Evelyn	Easton, Mo.
Bruno, Frida	6804 Minnesota av.
Bryan, Laura Pritchett	2800 Russell av.
Chopin, Lelia	3317 Morgan st.
Clark, Harriet F.	3217 Locust st.
Colman, Clara Wright	5471 Delmar av.
Collins, Edith	5539 Page av.
Cullen, Thomas Francis	Museum of Fine Arts.
Curns, Willie Luella	Ferguson, Mo.
Desloge, Marlan	Ferguson, Mo.
Dexter, Wyllian	2201 Park av.

NAME.	RESIDENCE.
Dietering, Daisy	3046 Locust st.
Dix, Eulabee	Beatrice, Neb.
Eichholz, Fred, Jr.	3811 N. 19th st.
Ellis, Belle	4478 W. Belle pl.
Federer, Charles A.	908 Russell av.
Freeman, Alice	Lindenwood College.
Frohard, Elda Louise	204 S. Leffingwell av.
Gilespie, Jane S.	Waco, Texas.
Garrels, Meta	4531 W. Pine st.
Gross, Emilie Mary	Webster Groves, Mo.
Harker, George Albert	2940 Laclede av.
Highley, Mary E.	Farmington, Mo.
Hunter, Bertha Edna	3663 Blain av.
Isenman, Will	Farmington, Mo.
Jameson, Marie Louise	5 Benton pl.
Jones, Isabel	3848 Olive st.
Keber, Laura C.	3832 Pine st.
Kissack, Robert Ashton	3028 Chestnut st.
Kuhn, Mignonette V.	1110 N. 9th st.
Lepere, Clara F.	1181 Leonard av.
Link, Carl Eugene	5900 W. Cabanne.
Lippincott, Eleanor Edwards	Webster Groves, Mo.
Lowell, James Henry, Jr.	Halton, Kansas.
Maloy, Eleanor A.	Morris Plains, N. J.
Matthews, Lucy	5447 Cabanne pl.
McKeen, Emma Catherine	3749 Delmar av.
Menne, Laura Estelle	4887 W. Pine st.
Metcalfe, Mabel M.	2928 Washington av.
Miller, Richard E.	2747 Wyoming st.
Morgan, Isaac A.	2736 Olive st.
Morrow, Della	Atchison, Kansas.
Murphy, M. Alice	Kansas City, Mo.
Myers, Nina Gordon	3940 Delmar av.
Pattison, Alice M. G.	4254 Olive st.

NAME.	RESIDENCE.
Pettus, Elise M.	2834 Chestnut st.
Petty, Kate	Boonville, Mo.
Phillips, Justina V. A.	1646 Texas av.
Phillips, Margery	4333 Morgan st.
Pfeifer, Clara M.	2917 Henrietta st.
Remmers, Louis John	3049 Sheridan av.
Richardson, Minnie Carpenter	3926 Washington av.
Richmond, Agnes Millen	1727 California av.
Robinson, Charles Weir	6708 Old Manch. rd.
Rumbold, Estelle J. I.	8706 W. Pine st.
Scales, Nancy Logan	1448 Dodier st.
Schuylar, Sophie N.	2820 Locust st.
Scroggs, Helen Elizabeth	Lennox, Iowa.
Sharmau, Florence May	2124 S. Compton av.
Sheppard, Helen Louise	4263 McPherson av.
Shortridge, Mary R.	3975 Olive st.
Shulz, Rudolph	1515 S. 7th st.
Siboni, Emma B.	2709a Armand st.
Sekinger, Joe	Vandalia, Ill.
Simon, Mabel Langdon	5028 Bell av.
Souther, Mary Lizzie	4329 W. Belle pl.
Spurr, John Oliver	2130 John av.
Starkloff, Irma Louise	3153 Longfellow av.
Stix, Alma	3195 Washington av.
Stoecker, Martha J.	1319 Lami st.
Suddick, Jennie L.	Desota, Mo.
Sullivan, Ella Mary	3228 Pine st.
Taake, Daisy	1924 Vandeventer pl.
Tilden, Caroline A.	3975 Olive st.
Timken, Cora B.	2933 Eads av.
Trueblood, Stella	3021 Magazine st.
Tulley, Mathilde J.	Paducah, Ky.
Vogelsang, Clara E.	2228 Dodier st.
Wallen, Lucy	Dublin, Texas.

NAME.	RESIDENCE.
Warfield, Alice	Sandoval, Ill.
Weinrich, Helen Waljeska	1746 Waverly pl.
Wilson, Ione H.	2819 Dayton st.
Woolf, Gertrude	Kansas City, Mo.
Students working full time . . .	96
Students working part time . . .	71
Students working in Night Classes	205
Total number enrolled . . .	372

ST. LOUIS LAW SCHOOL.

(LAW DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR 1895-96.

LAW SCHOOL opens Thursday, September 26th, 1895.

HOLIDAY, THANKSGIVING DAY, Thursday, November 28th, 1895.

VACATION, December 21, 1895, to January 1, 1896, inclusive.

HOLIDAY, WASHINGTON'S BIRTHDAY, Friday, February 22, 1896.

UNIVERSITY HOLIDAY, Friday, May 8, 1896.

COMMENCEMENT, Thursday evening, June 18, 1896.

VACATION, from June 18 to Thursday, September 24, 1896.

LAW SCHOOL opens Thursday, September 24, 1896.

HOLIDAY, THANKSGIVING DAY, Thursday, November 26, 1896.

VACATION, from December 24, 1896, to January 3, 1897, inclusive.

LAW SCHOOL.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,
CHANCELLOR OF WASHINGTON UNIVERSITY.

WILLIAM S. CURTIS, LL.B.,
DEAN OF THE LAW FACULTY.

**RODERICK E. ROMBAUER (PRESIDING JUSTICE ST. LOUIS
COURT OF APPEALS),**
PROFESSOR, REAL PROPERTY LAW AND EQUITY.

**AMOS M. THAYER, LL.D. (JUDGE OF U. S. CIRCUIT COURT
OF APPEALS),**
PROFESSOR, LAW OF CONTRACTS AND COMMERCIAL LAW.

GUSTAVUS A. FINKELNBURG, A. B.,
LECTURER, CONSTITUTIONAL LIMITATIONS.

CHAS. P. JOHNSON, A. M.,
LECTURER, CRIMINAL LAW.

FREDERICK N. JUDSON, LL.D.,
LECTURER, EVIDENCE AND CONSTITUTIONAL LAW

CHAS. NAGEL, LL.B.,
LECTURER, CORPORATIONS.

JAMES O. BROADHEAD, LL.D.,
LECTURER, INTERNATIONAL LAW.

EDWARD C. ELIOT, LL.B.
LECTURER, SALES AND BAILMENTS.

F. A. WISLIZENUS, LL.B.,
LECTURER, ADMINISTRATION.

I. H. LIONBERGER, A. M.,
LECTURER, STATUTE OF LIMITATIONS AND STATUTE OF FRAUDS.

PAUL F. COSTE, LL.B.,
LECTURER, EVIDENCE.

PENDLETON TAYLOR BRYAN, LL.B.,
LECTURER, TORTS AND NEGLIGENCE.

JACOB KLEIN (JUDGE OF ST. LOUIS CIRCUIT COURT),
LECTURER, ADVANCED CLASS.

LEE SALE, LL.B.,
LECTURER, PARTNERSHIP AND AGENCY.

C. O. BISHOP, LL.B.,
LECTURER, CRIMINAL LAW.

EDWARD P. PERRY,
INSTRUCTOR IN ELOCUTION.

ADVISORY AND EXAMINING BOARD.

DAVID J. BREWER, Justice of U. S Supreme Court.

SAMUEL TREAT, LL.D., U. S. District Judge (retired).

SHEPARD BARCLAY, Justice of the Supreme Court of Missouri.

WARWICK HOUGH, late Justice of the Supreme Court of Missouri.

SEYMOUR D. THOMPSON, late Judge of St. Louis Court of Appeals.

WILLIAM H. BIGGS, Judge of St. Louis Court of Appeals.

HENRY W. BOND, " " " " "

R. A. BAKEWELL, late Judge of St. Louis Court of Appeals

DANIEL DILLON, Judge of St. Louis Circuit Court.

LEROY B. VALLIANT, Judge of St. Louis Circuit Court.

JACOB KLEIN, " " " " "

JAMES E. WITHROW, " " " " "

DANIEL D. FISHER, " " " " "

J. GABRIEL WOERNER, late Judge of St. Louis Probate Court.

ELMER B. ADAMS, Judge of U. S. District Court.

WILBUR F. BOYLE, late Judge of St. Louis Circuit Court.

GEORGE W. LUBKE, late " " " " "

JAMES A. SEDDON, " " " " "

JOHN W. NOBLE, Ex-Secretary of the Interior.

HENRY S. PRIEST, late U. S. District Judge.

EDWARD C. KEHR, JOHN E. McKEIGHAN,

ARBA N. CRANE, SILAS B. JONES,

JAMES TAUSSIG, TRUMAN A. POST,

JOHN W. DRYDEN, HUGO MUENCH,

EDWARD CUNNINGHAM,JR., ELENEIOUS SMITH,

GEORGE H. SHIELDS, JAMES P. DAWSON,

JOHN P. ELLIS, DAVID GOLDSMITH,

CHARLES CLAFLIN ALLEN, JOHN A. HARRISON,

JOHN M. HOLMES, CHARLES S. TAUSSIG,

HENRY A. KENT, GARLAND POLLARD,

JAMES P. MAGINN, WELLS H. BLODGETT,

LEVERETT BELL, E. T. ALLEN,

EDWARD T. FARISH, EDWARD S. ROBERT,

EVERETT W. PATTISON, Of the St. Louis Bar.

COMMITTEES OF EXAMINATION.

FOR THE YEAR 1895.

For the Examination of Candidates for Graduation.

**GEORGE H. SHIELDS,
JAMES P. MAGINN,
JOHN M. HOLMES,
HENRY S. PRIEST,
WELLS H. BLODGETT,
E. T. ALLEN,
EDWARD S. ROBERT,
of the St. Louis Bar.**

For the Award of a Prize of Fifty Dollars for the best Graduation Thesis.

**THOMAS E. RALSTON,
WILLIAM E. GARVIN,
WALTER B. DOUGLAS,
of the St. Louis Bar.**

HONORS, 1895.

PRIZE ESSAYIST,
ALFRED C. F. MEYER.

The Juniors who passed all the Junior examinations with an average grade of more than eighty (80) per cent. and are therefore entitled to enter the Senior class *cum laude* are

- WILLIAM ROBERT SCHERY, St. Louis, Mo., 90.96.
GEORGE HEARST BOWLES, Valley Park, Mo., 86.59.
JAMES HAMILTON GROVER, St. Louis, Mo., 85.17.
GEORGE GREEN MARTIN, St. Louis, Mo., 85.10.
VERDE VICAR HARDCASTLE, St. Louis, Mo., 84.83.
LEE A. HALL, JR., St. Louis, Mo., 84.64.
JOSEPH BLOCK, St. Louis, Mo., 84.39.
TAYLOR ROBERT YOUNG, Brandenburg, Ky., 83.68.
EDWARD V. P. SCHNEIDERHAHN, St. Louis, Mo., 82.55
W. ARTHUR PETREE, Fillmore, Mo., 82.32.
JOHN M. HODGEN, St. Louis, Mo., 81.65.
CHARLES RIVES SKINKER, St. Louis, Mo., 81.49.
JOHN C. CUMMING, JR., St. Louis, Mo., 81.45.
ELLERY HILL WESTERFIELD, Omaha, Neb., 80.61.
MAURICE L. ALTHEIMER, Pine Bluff, Ark., 80.30.

ADVANCED CLASS.

RESIDENCE.

Bryan, William Christy (A. B., 1891, Princeton University; LL.B., 1894, Washington University)	St. Louis, Mo.
Cannon, Thomas D.	St. Louis, Mo.
Caulfield, Henry S. (LL.B., 1894, Wash- ington University)	St. Louis, Mo.
Charles, Benjamin H. (A. B., 1885, West- minster College; LL.B., 1891, Yale University)	St. Louis, Mo.
Dewart, Frederick W. (A. M., 1892, Harvard University; LL.B., 1895, Washington University)	St. Louis, Mo.
Fox, Charles J. (A. B., 1892, Christian Brothers College; LL.B., 1895, Wash- ington University)	St. Louis, Mo.
Haluer, Julius C. (LL.B., 1893, Wash- ington University)	St. Louis, Mo.
Jones, Alfred H. (A. B., 1893, Yale Unl- versity; LL.B., 1895, Washington University)	St. Louis, Mo.
Lewis, Joseph W., Jr. (A. B., 1890, Princeton University; LL.B., 1893, Washington University)	St. Louis, Mo.
Meyer, Alfred C. F. (LL.B., 1895, Wash- ington University)	St. Louis, Mo.
Mudd, John Hodgen (LL.B., 1895, Wash- ington University)	St. Louis, Mo.
Pettus, William G. (A. B., 1892, Yale University; LL.B., 1895, Harvard University)	St. Louis, Mo.
Puller, Edwin S.	St. Louis, Mo.

RESIDENCE.

Steinwender, Herman A., Jr. (LL.B.,
 1895, Washington University) . . . St. Louis, Mo.
 Taussig, John Clarence (A. B., 1893,
 Harvard University; LL.B., 1895,
 Washington University) . . . St. Louis, Mo.
 Ungar, Carl St. Louis, Mo.

SENIOR CLASS.

Altheimer, Maurice S., Pine Bluff, Ark. 2839 Washington av.
 Anderson, James R., St. Louis, Mo. . . 1621 Texas av.
 Auer, Reno Alphonso (A. B., 1894, St.
 Louis University), St. Louis, Mo. . . 2712 S. Grand av.
 Balfour, Henry A., St. Louis, Mo. . . 3115 Franklin av.
 Barbee, Daisy D. (B. S., 1892, Midland
 College), Pullman, Wash. 3132 Washington av
 Barrows, Clarence Andrew, East St.
 Louis, Ill. 506 Missouri av.
 Beck, George F., St. Louis, Mo. . . . 3319 Pine st.
 Block, Joseph, St. Louis, Mo 1328 Hickory st.
 Bowles, George Hearst (B. S., 1894, St.
 Charles College) Valley Park, Mo.
 Brown, William, Jr., Jacksonville, Ill. . 2819 Locust st.
 Carr, William Paul, St. Louis, Mo. . . 2215 Park av.
 Clark, Snyder Hoxie (A. B., 1894, Prince-
 ton University), St. Louis, Mo. . . 3501 Pine st.
 Crouch, Charles R., St. Louis, Mo. . . 2908 Pine st.
 Culver, Lucius Ferdinand (A. B. 1894,
 Harvard University), St. Louis, Mo. . 39 Portland pl.
 Cummings, John C., Jr. (A. B., 1894,
 Washington University), St. Louis,
 Mo. 3514 Olive st.
 Dalton, John Davis, St. Louis, Mo. . . 1113 N. Grand av.
 Daly, Charles J., St. Louis, Mo. . . . 3419 Pine st.
 Dutro, Thomas Corwin, St. Louis, Mo. 4254 Olive st.
 Erd, William E., Waterloo, Ill. 2636 Locust st.

RESIDENCE.

- Ewing, Mark (Ph. B., 1893, Yale University), St. Louis, Mo. 2740 Locust st.
 Grover, James Hamilton, St. Louis, Mo. 3416 Washington av.
 Hall, Lee A., Jr., St. Louis, Mo. . . . 1425 Missouri av.
 Hardcastle, Verde Vicar, St. Louis, Mo.
 Hartmann, Moses, St. Louis, Mo. . . . 1400 S. Broadway.
 Hawes, Harry B., St. Louis, Mo. . . . 3827 Windsor pl.
 Hillig, Gustavus Adolphus, Meredosia,
 Ill. 1009 Morrison av.
 Hodgen, John M., St. Louis, Mo. . . . 1023 Thornby pl.
 Horner, William L., St. Louis, Mo. . . 2730 Washington av.
 Horton, Benjamin J., St. Louis, Mo. . . 1417 Lucas pl.
 Johnson, Edward Reade, St. Louis, Mo. 4033 Page av.
 Keller, Kent Ellsworth (A. B., So Ill.
 Normal University), Ava, Ill. 2320 Wittemore pl.
 Kern, H. B., Indianola, Ia. 1420 Lucas pl.
 Koperlik, Benjamin F., St. Louis, Mo. . 3510 Henrietta av.
 Lopez, George, St. Louis, Mo. 3748 Westminster pl.
 Macauley, Charles J., Deer Plain, Ill. . 2206 Lucas pl.
 McKoin, Clarence G., St. Louis, Mo. . . 6101 Page av.
 Miller, Albert L., St. Louis, Mo. 1309 N. 14th st.
 Miller, Charles Henry (B. S., 1894,
 Mount Union College), Wilmot, Ohio 1417 Lucas pl.
 Noland, Henry Percy, St. Louis, Mo. . . Beaumont Hotel.
 Petree, W. Arthur, Fillmore, Mo. 2930 Olive st.
 Pope, William Spencer, Jr (Ph. B ,1894,
 Yale University), St. Louis, Mo. 3625 Lindell av.
 Rutledge, Charles Waite, St. Louis, Mo. 1427 Missouri av.
 Schery, William Robert, St. Louis, Mo. 2000 Penn st.
 Schneiderhahn, Edward V. P. (A. B.,
 1894, St. Louis University), St.
 Louis, Mo. 1129 S. 7th st.
 Simons, William A., Missoula, Mont. . .
 Skinker, Charles Rives (A. B., 1894
 Yale University), St. Louis, Mo. . .

RESIDENCE.

Thomson, Lewis W., St. Louis, Mo. . . 3863 Delmar av
 Townley, G. Frank, St. Louis, Mo. . . 4806 Cook av.
 Von Weise, Charles, Sarcoxie, Mo. . . 2636 Lucas pl.
 Walden, Charles Sumner, St. Louis, Mo. 4133 Finney av.
 Walker, George Herbert, St. Louis, Mo. 58 Vandeventer pl.
 Ward, Clarence Cromwell, St. Louis, Mo. 1714 Lucas pl.
 Westerfield, Ellery Hill (A. B., 1893,
 Monmouth College), Omaha, Neb. . . 3546 Page av.
 Young, Taylor Robert, Brandenburg, Ky. 3899 Washington boul.

JUNIOR CLASS.

Austin, James Brewster, St. Louis, Mo. 7039 Horner av.
 Baker, Henry A. (A. B., 1895, Yale Uni-
 versity), Union Hill, N. Y. 2902 Pine st.
 Barrett, Peter T., St. Louis, Mo. 3507 Manchester av.
 Bayliss, Edward M., St. Louis, Mo. 2639 Washington av.
 Bennett, E. S., St. Louis, Mo.
 Bixby, Guy Masson, St. Louis, Mo. 518 Vandeventer av.
 Bland, Thomas Leländ (A. B., 1895,
 Kentucky University), Vandalla, Mo. 2900 Morgan st.
 Bond, Lee, Leavenworth, Kas. 3015 Bell av.
 Boyer, John Sidney (B. L., 1895, Uni-
 versity of Missouri), Easton, Mo. 2930 Olive st.
 Brinkman, Ferdinand Carl, St. Louis,
 Mo. 1083 S. 8th st.
 Bryant, Max Müller (A. B., 1895, Wash-
 ington University), St. Louis, Mo. 1285 Temple pl.
 Bryson, M. Dee, St. Louis, Mo. 1417 Lucas pl.
 Buder, Eugene, St. Louis, Mo. 3321 Shenandoah av.
 Burleigh, George P. (A. B., 1894, St.
 Louis University), St. Louis, Mo. 3083 Morgan st.
 Bushnell, David Lois, Jr., St. Louis,
 Mo. 3830 Delmar av.
 Caldwell, Robert Lee (B. S., 1892, Mis-
 souri University), St. Louis, Mo. 1925 Olive st.

RESIDENCE.

Callaus, John, Winchester, Ill.	. . . . .	1627 Washington av.
Carson, John Fulton, Sparta, Ill.	. . . . .	1627 Washington av
Carter, Charles Hardin, Farmington, Mo.	. . . . .	4929 Lotus av.
Carter, William Gordou, King City, Mo.	. . . . .
Chambers, William Monel, St. Louis, Mo.	. . . . .	3418 Lucas av.
Chappell, Edwin Rutherford, St. Louis,		
Mo.	. . . . .	3811 Westminster pl.
Clark, Crittenden, St. Louis, Mo.	. . . . .	2944 Market st.
Clarke, Owen J. (A. B., 1895, St. Louis		
University), St. Louis, Mo.	. . . . .	3133 Eads av.
Cobbs, Thomas Harper (B. S., 1889,		
Odessa College), Marshall, Mo.	. . .	1520 Locust st.
Coussens, Andrew Hills, St. Louis, Mo.	. . . . .
Davies, George A., St. Louis, Mo.	. . .	1908 Wash st
Duvall, Frank J., Pike Co., Mo.	. . . . .	2212 Hickory st.
Edwards, Frederick M., Delhi, Ill.	. . . . .	1417 Lucas pl.
Engel, Albert H., St. Louis, Mo.	. . . . .
Flynn, John M. (A. M., 1894, St. Louis		
University), St. Louis, Mo.	. . . . .	4320 Fairfax av.
Freark, Frederick Aaron (A. B., 1893,		
Harvard University), Alton, Ill.	. . .	
Garesche, William Augustus Vital, St.		
Louis, Mo.	. . . . .	3870 Windsor pl.
Goodman, Louis De Witt, St. Louis, Mo.	. . . . .	200 Victor st.
Greeusfelder, Joseph B., Central, Mo.	. . . . .
Guelting, Charles E., Edwardsville, Ill.	. . .	203 N. 12th st.
Haid, George F., St. Louis, Mo.	. . . . .	4738 Hammitt pl.
Harbison, Robert S., St. Louis, Mo.	. . .	7019 S. Broadway.
Harvey, Julian C., Kirkwood, Mo.	. . . . .
Higginbotham, Henry, Kirkwood, Mo.	. . . . .
Hollmann, Frederick G., St. Louis, Mo.	. . . . .	782 Bayard av.
Huey, Clinton Melvin, Monmouth, Ill.	. . .	3226 Pine st.
Ittner, Anthony Francis (A. B., 1895,		
Washington University), St. Louis,		
Mo.	. . . . .	2603 Michigan av.

RESIDENCE.

Jones, McLain, Springfield, Mo.	
Johnson, Merle M., Monmouth, Ill.	3226 Pine st.
Johnson, Ralph O., St. Louis, Mo.	4300 Washington av.
Johnston, William Hartshorne, Jr.,	
U. S. Army	767 Euclid av.
Kavanaugh, Timothy, St. Louis, Mo.	1341 N. Garrison av.
Kimmel, Karl, Leavenworth, Kas.	1417 Lucas pl.
Knotts, A. W., Lucas, Iowa	
Lane, John J., St. Louis, Mo.	3743 Evans av.
Laughlin, Randolph Houston, St. Louis,	
Mo.	
Long, Will Z. (A. M., 1890, La Grange	
College), St. Louis, Mo.	1804 Lucas pl.
MacDonald, Robert S., Jr., St. Louis,	
Mo.	707 N. Leflingwell av.
Martin, Stephen Augustine (A. B., 1890,	
Christian Brothers College, Mo.), St.	
Louis, Mo.	3504 Bell av.
Masterson, Thomas Joseph (A. B., 1894,	
St. Louis University), St. Louis, Mo.	3605 Olive st.
McLean, Henry C., St. Louis, Mo.	3923 Evans av.
Mee, William Louis, St. Louis, Mo.	
Miller, Daniel C., St. Louis, Mo.	2830 N. 28d st.
Miller, Henry F., Philadelphia, Pa.	
Mortland, Samuel G., St. Louis, Mo.	3005 Eads av.
Munson, Edwards Clarence, Clinton,	
Mo.	107 N. 18th st.
Nast, Condé Montrose (A. B., 1894,	
Georgetown University), St. Louis,	
Mo.	530 Spring av.
Norris, Charles B. (A. B., 1894, St. Louis	
University), St. Louis, Mo.	4121 W. Pine boul.
North, Flavius J. (A. M., 1895, Central	
College), Labadie, Mo.	
O'Reilly, Gerald B., St. Louis, Mo.	3107 Pine st.

RESIDENCE.

O'Toole, John J., St. Louis, Mo.	1701 Carr st.
Paramore, Edward E. (Ph. B., 1882, Yale University), St. Louis, Mo.	4040 Delmar av.
Parker, Luman F., St. Louis, Mo.	4358 Morgan st.
Price, William M., St. Louis, Mo.	3840 Washington boul.
Reiss, Paul, St. Louis, Mo.	1907 Lami st.
Reno, John B. (A. B., 1895, St. Louis University), St. Louis, Mo.	2826 S. 2d st.
Rucker, John F., St. Louis, Mo.	2922 Dickson st.
Rudolph, Edward E., St. Louis, Mo.	4329 N. 14th st.
Ruler, Max F., St. Louis, Mo.	The Westerman.
Ryan, Denis A., St. Louis, Mo.	2714 Madison st.
Ryan, Edward Sherwood, Old Orchard, Mo.	
Shepley, Arthur Behn (A. B., 1895, Yale University), St. Louis, Mo.	50 Vandeventer pl.
Sheridan, William P., St. Louis, Mo.	2358 Mullanphy st.
Shields, B. F., St. Louis, Mo.	3860 Delmar av.
Smith, Luther Ely (A. B., 1894, Amherst College), St. Louis, Mo.	2902 Pine st.
Spaulding, Wilbur Berry (A. M., 1881, Iowa Wesleyan University), St. Louis, Mo.	2816 Locust st.
Stone, Royal Augustus, St. Louis, Mo.	1819 Oregon av.
Thatcher, Charles William, St. Louis, Mo.	5060 Morgan st.
Thornton, Francis A. (A. B., 1894, St. Louis University), St. Louis, Mo.	3830 Washington av.
Uhl, Hermann, St. Louis, Mo.	4008 Delmar av.
Valier, Louis A., St. Louis, Mo.	4362 Washington av.
Van Patten, John Lane, St. Louis, Mo.	1431 Lucas pl.
Waggoner, Bert Guy, Godfrey, Ill.	1420 Locust st.
Warren, Thomas A., Seymour, Mo.	3653A Shenandoah st.
Watkins, John Arthur, St. Louis, Mo.	2738 Morgan st.

RESIDENCE.

Watson, J. O. (A. B., 1893, Simpson
College), Indianola, Iowa
Wilkinson, William J., St. Louis, Mo. 4406 Nat. Bridge rd.
Williams, George Howard (A. B., 1894,
Princeton University), California, Mo. 3224 Washington av.
Wolfsberger, E. Henry, Rock Hill, Mo.

Advanced Class	16
Senior Class	54
Junior Class	95
<hr/>	
Total, 165	

HISTORICAL AND DESCRIPTIVE.

The Law School was founded in the year 1867 by the united efforts and counsels of the Directors of Washington University and of members of the profession actually in practice or then on the bench in the city of St. Louis. Feeling the importance of more thorough education in the Law than is usually required as a condition for admittance to the bar, they resolved to found a school which should give the best and most complete course of legal study possible within two years, and should be so conducted as to make its diploma an indisputable proof of the attainment of a high and uniform standard, without reference to numbers or to the support of the school from tuition fees. With that end in view the organization was adopted which has ever since been maintained. The University adopted the school as one of its departments, appointed the Dean and Faculty, and has always provided for its maintenance and has granted its degrees to the graduates. But the oversight of the course of study and the examination of candidates for such degrees were committed to an Advisory and Examining Board, composed of Judges of Federal and State Courts and members of the St. Louis Bar, distinguished for their talents and general and legal erudition, by whose committees those examinations are always conducted, and whose award is conclusive. These committees fix the topics upon which candidates for a diploma must be examined, prepare the questions upon each topic, and pass upon the

candidates' answers, under a system which secures the absolute impartiality of the result; the papers being distinguished by numbers only, and the name of the candidate represented by each number being unknown to the examiner. The papers of a candidate must reach the fixed standard of merit required by the committee or he will fail to pass, without even his name being known to them. Those who reach that standard are recommended to the University Directors for the degree of Bachelor of Laws (which is by law an admission to the bar).

In consequence of this organization the school is known alike as the Law Department of Washington University, and as the St. Louis Law School. First opened to students September 16, 1867, it has now been in successful and unbroken operation for twenty-eight years. In the city of St. Louis, during nine months in the year, besides the ordinary municipal and inferior courts, there are in almost uninterrupted session the Appellate, Circuit and District Courts of the United States, taking cognizance of questions in Admiralty and Revenue Law, as well as of causes at Common Law and Equity; also the Circuit and Criminal Courts of the State, and the St. Louis Court of Appeals—in one or other of which are constantly illustrated the learning and practice of every department of American jurisprudence.

ENDOWMENT AND EDIFICE.

To insure the perpetual maintenance of its course, and by the generous public spirit of a few friends, an endowment now amounting to *seventy-seven thousand dollars*

has been given, and invested in good securities in the name of Washington University, in trust for the perpetual support of the Law Department: the interest of such fund to be used for that purpose. It is hoped that this fund will be enlarged by other gifts.

The Directors of Washington University have formally dedicated to the use of the Law Department, rent free, forever, the building now occupied by the Law School. This is a large and commodious building of three stories, No. 1417 Lucas Place, standing upon its own grounds, with a frontage of *one hundred feet* upon Lucas Place, the most convenient location in the city for such an institution. All the lecture and recitation rooms of the various classes, the libraries, Dean's office, society rooms, etc., are concentrated in this building, and the best accommodations for students may be found in the part of the city surrounding it. The principal library room is 48 by 50 feet in size and is open every day and evening for the use of students, many of whom spend all their study hours here. Considerable additions have been made to the Library, which now contains more than 7,000 bound volumes. The Library *belongs to the school* and is devoted exclusively to the use of the students. By the courtesy of the Law Library Association they have also access on Saturdays to the Bar Library at the Court House, containing a very complete collection of American, British, Scotch, Irish and Colonial Reports and treatises. Rooms are also fitted up as reading and conversation rooms for students.

ADMISSION.

Applicants for admission to the school will be expected to furnish satisfactory evidence of good character and of at least a good English education. The diploma of any reputable college, academy or high school will be received as evidence of the latter; or the applicant may pass an examination, in which attention will be directed chiefly to the fundamental elements, and the ability to read, write and speak the language correctly; to a general knowledge of English and American history, and to the first principles of mathematical and logical reasoning.

No fixed rule as to the age of applicants for admission will hereafter be enforced, but the Faculty reserve the right to reject any student not old enough to begin the study of law with advantage; and no student will receive the degree of Bachelor of Laws before the completion of his twenty-first year.

Candidates for the Senior Class will also be required to pass examination on the studies of Junior year. To those who have previously been members of the Junior Class, the examinations of that year will suffice, if creditably passed; and those who failed to pass, may, upon further study, apply again for examination in September, provided their record is not too unsatisfactory. The regular examination for this purpose will be held on Tuesday, Sept. 22nd, 1896, at 9 A. M., at the Law School, 1417 Lucas Place; and new applicants for admission as Seniors are requested to attend it, if possible, so as to begin the year's work with the class. Students of both classes are

advised for their own advantage to enter on the first day of the course, or as soon thereafter as possible. They will find the lectures of the first few days of especial help to them throughout the year.

Admission to the Junior Class may be had at any time during the year; to the Senior Class after the examination in September it will be granted only upon special examination, at a time fixed by the Dean upon application, not later than the first day of school after the Christmas holidays; and no person will be admitted a member of the Senior Class as a candidate for a degree after that day; nor at any time upon any certificate of attainments, or previous study or attendance elsewhere.

But the privileges of the school will not be confined to those who are candidates for a degree, or wish to complete the entire course. Members of the bar of any State, who wish to study particular branches of law, will be admitted at any time for that purpose; and so also will students who can take but a partial course of study; or those who take the entire course without seeking a degree. The last mentioned class will be expected to pay full tuition; to the others reduction will be made according to the circumstances of each case, but not exceeding one-half the regular tuition fee for each term. Any person coming within either of the foregoing classes, and possessing the general qualifications mentioned above, may attend the lectures of either class upon being enrolled in such class, and engaging to comply with the current regulations of the Law School. Such enrollment will entitle him to the privileges of the Library, and to attend all lectures and other exercises in both classes,

but not to be examined for graduation, nor to compete for a prize essay or degree. All certificates of attendance granted to such students will distinctly state that they were not members of the regular class, but will enable them to receive credit for the time spent in the school, as a part of the time required by statute for admission to the bar of any State.

COURSE OF STUDY.

The course for the degree of LL.B. may still, as heretofore, be completed in two annual terms, each of which (excluding the recess of two weeks at Christmas) occupies more than eight months in continuous study, beginning on the fourth Wednesday of September of each year.

JUNIOR CLASS.

Elementary Law. *Robinson and Blackstone.* Thirty lectures.
Mr. Wm. S. Curtis.

Contracts. *Bishop on Contracts.* Commercial Paper. *Tiedemann.* Sixty-two lectures. Judge Amos M. Thayer.

Torts. *Cooley on Torts.* *Whittaker's Smith on Negligence.* Sixty-two lectures. Pendleton T. Bryan, Esq.

Sales and Bailments. *Benjamin on Sales.* *Schouler on Bailments.* Sixty-two lectures. Edward C. Eliot, Esq.

Agency. *Meacham on Agency.* Fifteen lectures. Lee Sale, Esq.

Criminal Law. Twenty lectures. Governor Chas. P. Johnson and C. O. Bishop, Esq.

Pleading. Common Law and Code. *McKelvey and Bryant.* Twenty-five lectures. Mr. Wm. S. Curtis.

SENIOR CLASS.

- Equity and Equity Pleading. *Bispham*, and *Tyler's Milford*. Thirty-one lectures. Judge Roderick E. Rombauer.
- Corporations. *Taylor and Dillon*. Thirty-one lectures. Charles Nagel, Esq.
- Domestic Relations. *Schouler*. Twenty-two lectures. Mr. Wm. S. Curtis.
- Constitutional Law. Ten lectures. Frederick N. Judson, Esq.
- Constitutional Limitations. *Cooley*. Ten lectures. Hon. G. A. Finkelnburg.
- Jurisdiction of Federal Courts. Ten lectures. Judge Amos M. Thayer.
- Evidence. Thirty lectures. Frederick N. Judson, Esq., and Paul F. Coste, Esq.
- International Law. Twenty-five lectures. Hon. James O. Broadhead.
- History of Common Law. Thirty-one lectures. Mr. Wm. S. Curtis.
- Partnership. *Parsons on Partnership*. Fifteen lectures. Lee Sale, Esq.
- Real Property. *Tiedeman*, with references to *Washburn*. Fifty lectures. Judge Roderick E. Rombauer.
- Statute of Limitations and Statutes of Fraud. Ten lectures. I. H. Lionberger, Esq.
- Administration. *Woerner*. Twenty lectures. Fred. A. Wislizenus, Esq.
- Moot Court. Once a week for both classes.
- The above courses are subject to slight changes from year to year.

ADVANCED CLASS.

An Advanced Course, on the law of Extraordinary Legal Remedies, open to all graduates of this school and to members of the bar, is conducted during the school

year, by Hon. Jacob Klein, Judge of the St. Louis Circuit Court. The class meets every Saturday at 4 p. m. Tuition for the school year, twenty dollars.

It is expected that this course will be continued and enlarged in subsequent years until it can be merged in a third year of the regular course to be required of all candidates for a degree.

MOOT-COURT.

A Moot-Court is held weekly throughout seven months of the year. It is conducted, as nearly as possible, with the forms of an ordinary court of justice, and students are expected to draw pleadings in the cases assigned to them, and to conduct them through all the stages of a legal or equitable suit before trying the issues in the Moot-Court. Two members of the Senior Class may be appointed to sit as Associate Justices, and required to write opinions; the Dean deciding in case of a difference between them. The cases will be selected to illustrate the subjects studied by the classes and will be made so far as possible, means of instruction, not only in practice, but in the doctrines of the law. Both classes will be assigned to argue cases in these courts. The *Moot Court Record* is a weekly published by the School, containing the Statements of Facts, Briefs, and Opinions.

Opportunity will also be given for the organization of Club Courts among the students, with every facility for practice in the preparation and argument of cases, and for appeals from these to the Moot-Court, if desired.

Such a court has been in successful operation the last two years.

ELOCUTION AND DEBATE.

The Moot-Courts and other exercises furnish an excellent means of improvement in public speaking, better adapted to the needs of the law student than declamation, or any other usual form of instruction in oratory. Those who desire it, will receive private advice and criticism upon the manner as well as matter of their exercises of this nature. Experience has shown that where there is natural aptitude for public speaking, students by this means alone can become ready and effective speakers during the two years of the course. But for the purpose of more thorough instruction in this branch of the professional work, and in the proper care, management and preservation of the voice, upon which so much of the value of the lawyer's work depends, exercises in elocution will hereafter form a part of the regular course, under the care of Mr. Edward P. Perry, Instructor in Elocution in Washington University, who will give each class an exercise of this kind weekly.

The expense of this instruction is defrayed by the School. Students who desire private lessons in addition to these will have an opportunity of obtaining them from the same teacher.

LIBRARY AND TEXT-BOOKS.

The Law Library, for the use of which no charge is made, consists of about 7,000 volumes, selected with

great care, and including more than two hundred extra copies of the text-books in use.

Students, whose means are limited, can complete the course with very little expenditure for books, as the school library is well supplied, is kept open from 9 a. m. to 9. p. m., and is strictly regulated to facilitate study in the room at all hours. No person except the members of the Law School have access to it. Those who have the means to purchase books of reference without inconvenience, or who can bring such books with them, are recommended to provide themselves with a good law Dictionary, a copy of Kent's Commentaries or Bouvier's Institutes, any comprehensive work on Contracts and a similar one on Torts, and Bishop's or Wharton's works on Criminal Laws and Criminal Procedure, in addition to the text-books above mentioned.

They will do well to add also the Statutes of their own State and a Digest of its reports, both, if possible, in the latest editions. But none of the foregoing works are indispensable.

The expense of text-books for the entire course, if purchased new and of the latest editions, is about \$75. This sum may be materially reduced by the purchase of second-hand books which may be usually had in considerable variety. All the books used in recitation may be found in the Library and can be studied there free of charge, but not taken from the room.

GRADUATION.

Applicants for the degree of LL.B. must have been members of the Senior Class for the required time, and

must have attended with the prescribed regularity. They will deliver to the Dean on or before the fifteenth day of May an original thesis upon some legal subject approved by the Faculty. The subject of the thesis for the year 1895 was: "The important changes effected by modern legislation, in the contractual capacity of married women."

They must pass the examination prescribed by the Advisory and Examining Board, and conducted by a committee of that Board. This examination will be in writing, upon questions prescribed by the Committee, and answered under the supervision of a member of the Faculty, without the use of books or any other assistance. It usually occupies an entire week, and is held early in June. As the degree of LL.B. conferred by this University entitles the holder to admission to the bar, it will not be granted except upon the most satisfactory evidence of actual proficiency, or to any person who will not have attained the age of twenty-one years on or before the first of October following, at the latest.

By the Revised Statutes of Missouri of 1889, § 624 (vol. 1, p. 237), all who have completed this course and taken this degree are entitled to practice law in this State without further examination, upon taking the oath prescribed in the constitution and laws (§ 608, and Const., art. XIV., § 6).

FEES AND EXPENSES.

The annual fee for attendance in either class is \$80, payable in advance. There are no extra charges of any kind, and the members of either class are free to attend

all lectures and exercises of both ; but no student can at the same time be a regular member of more than one class. No reduction will be made from the term fee, nor any part of it returned for absence from any cause. Class tickets are in no case transferable.

Good board and lodging can readily be obtained in the city at from \$4 to \$5 per week. The expense may be lessened to students rooming together. The average price paid for board with rooms during the last two or three years by students in good houses near the Law School is believed to have been not over \$20 per month, while some have obtained it as low as \$15.

Those who find it necessary to earn a part of their living in other pursuits while taking the course can do so by lengthening that course from two to three years, taking a proportionate part of the class-work (to be designated by the Faculty according to circumstances of each case) in each year. Every facility will be extended to them for such an arrangement ; and the charge for tuition in such cases will only be for two years ; but no other diminution of the daily requirements of attendance and study will be sanctioned, except in the case of special students not candidates for a degree.

OPPORTUNITIES FOR STUDY IN OTHER DEPARTMENTS OF THE UNIVERSITY.

Students paying full tuition in the Law Department may take special studies in the Undergraduate Department without additional charge for tuition, provided they are able to do so without interference or neglect of any

part of the Law course. Hours in the Law Department will be so arranged as to permit them to take, in particular, the courses upon Political Economy, on Constitutional History, and on International Law. To avail themselves of this privilege, they must present for each course a written introduction from the Dean of the Law Faculty and must engage to attend such course punctually, and to conform to the same regulations with other students of that course.

SCHOLARSHIPS AND PRIZES.

In pursuance of the terms of a donation of \$6,000 heretofore made to the University for the benefit of the Law School, *six free scholarships* are established in this department; also an annual prize of \$50 in money for the best thesis upon some legal topic, to be publicly awarded at Commencement. Competition for this prize is confined to the regular members of the graduating class in each year under regulations announced at the commencement of the term.

Applicants for *free scholarships* should apply in person or by letter to the Dean, on or before the fifteenth day of September, furnishing written testimonials of at least two responsible persons, that the pecuniary circumstances of the applicant are such as to make him deserving of this assistance, that he is of good character and standing, and that he has received a good English education at least. Other things being equal, preference will be shown to candidates who have received a collegiate education, and especially to those who have done this

wholly or partially by their own efforts. Applicants not personally known to any of the Faculty will do well to state fully and precisely their age, place of birth and residence, present occupation, education (both general and legal), and any other circumstances that may be of weight in making a selection. Such communications will be held strictly confidential.

Applicants for Senior scholarships, in addition to the above, will be required to pass all examinations upon the studies of the preceding Junior year.

As the applicants for *free scholarships* are usually far in excess of the number that can be given, no student will hereafter have the benefit of such scholarship for more than one year. As far as practicable, the scholarships will be equally divided between the two classes — depending upon the number and success of the candidates for scholarship in either class.

Two members of each class have an opportunity to earn their tuition and a small salary in addition, by service as librarians, and in other capacities connected with the work of the School. Application for such positions must be made in person, on or before the fifteenth day of September.

For further information, inquiries may be addressed to Wm. S. CURTIS, Law School Building, 1417 Lucas Place, St. Louis, Mo., or the Secretary of Washington University.

ST. LOUIS MEDICAL COLLEGE.

(MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1895-96.

ENTRANCE EXAMINATIONS, Tuesday and Wednesday, September 24 and 25, 3 p. m.

SESSION OPENS Thursday, September 26.

CHRISTMAS VACATION, December 21 to January 1, inclusive.

COMMENCEMENT (Graduating Exercises), Thursday, April 30, 1896.

HOLIDAYS: Thursday of Fair Week, Thanksgiving Day, Washington's Birthday.

ST. LOUIS MEDICAL COLLEGE.

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JOHN GREEN, M. D.,
Professor of Ophthalmology.

JAMES M. SCOTT, M. D.,
Professor of Obstetrics.

* Deceased, January 18th, 1896.

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Professor of Diseases of the Nervous System.

HENRY SCHWARZ, M. D.,
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FRANK A. GLASGOW, M. D.,
Professor of Clinical Gynaecology.

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Professor of Descriptive Anatomy.

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JOSEPH GRINDON, M. D.,
Professor of Dermatology.

HENRY HODGEN, M. D.,
Professor of Orthopædic Surgery.

JOHN B. SHAPLEIGH, M. D.,
Professor of Otology.

OTHER INSTRUCTORS.

SIDNEY P. BUDGETT, M. D.,
Assistant Professor of Physiology and Histology.

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Lecturer, and Demonstrator of Pathology.

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AMAND N. RAVOLD, M. D.,
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LEWIS L. McCABE, M. D.,
Instructor in Clinical Medicine.

JULES F. VALLÉ, M. D.,
Instructor in Obstetrics, and Chief of the Obstetrical Clinic.

GREENFIELD SLUDER, M. D.,
Instructor in Clinical Medicine and Urinology.

FRANK B. GALLIVAN, A. M.,
Assistant in Chemistry.

EDWIN C. BURNETT, M. D.,
Lecturer on Syphilis.

VILRAY P. BLAIR, M. D.,
Instructor in Practical Anatomy.

CHARLES CLAFLIN ALLEN, LL.B.,
Lecturer on Medical Jurisprudence.

HORACE W. SOPER, M. D.,
Curator of the Museum.

STAFF OF THE O'FALLON DISPENSARY.

PROFESSOR H. H. MUDD,
Director.

CLINICAL LECTURERS.

PROFESSOR H. H. MUDD,
Surgery.

PROFESSOR W. E. FISCHEL,
Medicine.

PROFESSOR ROBERT LUEDEKING,
Diseases of Children.

PROFESSOR JOHN GREEN,
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DR. E. S. SMITH,
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DR. E. C. BURNETT,
Syphilis.

DISPENSARY PHYSICIANS.

DR. E. S. SMITH, DR. G. SLUDER, DR. H. FRUMSON,
DR. H. W. BEWIG,
Medical Clinic.

DR. H. C. HARTMANN, DR. H. NIETERT,
Surgical Clinic.

DR. WILLIS HALL, DR. W. C. MARDORF,
Gynaecological Clinic.

DR. A. E. EWING,
Ophthalmic Clinic.

DR. E. C. BURNETT, DR. H. McC. JOHNSON,
Clinic for Diseases of the Genito-Urinary Organs, and Syphilis.

DR. G. S. MILLER, DR. G. M. TUTTLE,
Clinic for Diseases of Children.

DR. FRED. HOLTGREWE, DR. MALCOLM BLISS,
Clinic for Diseases of the Nervous System.

DR. J. F. VALLÉ, DR. J. M. SCOTT,
DR. WILLIS HALL, DR. HENRY SCHWARZ,
DR. W. C. MARDORF, DR. F. A. GLASGOW,
Obstetrical Clinic.

DR. E. G. MITCHELL,
In Charge Obstetrical out-Clinic.

DR. CHAS. J. ORR,
Clinic for Diseases of Throat.

DR. J. P. HOEFFER,
Clinic for Diseases of the Skin.

ST. LOUIS MULLANPHY HOSPITAL.

PROFESSOR E. H. GREGORY.
Surgeon in Chief.

CLINICAL LECTURERS.

PROFESSOR E. H. GREGORY,
Surgery.

PROFESSOR N. B. CARSON,
Surgery.

PROFESSOR PAUL Y. TUPPER,
Surgery.

DR. L. L. McCABE,
Medicine.

PROFESSOR J. P. BRYSON,
Genito-Urinary Surgery.

PROFESSOR FRANK A. GLASGOW,
Diseases of Women.

PROFESSOR E. M. SENSENEY,
Diseases of the Nose, Throat and Chest.

DR. ELISHA H. GREGORY, JR.,
Chief of Surgical Clinics.

ST. LOUIS CITY HOSPITAL.**CLINICAL LECTURERS.**

PROFESSOR H. H. MUDD,
Surgery.

PROFESSOR HARVEY G. MUDD,
Alternate.

PROFESSOR W. E. FISCHEL,
Medicine.

PROFESSOR E. F. SMITH,
Alternate.

STUDENTS.

NAME.	RESIDENCE.
Althouse, G. H.	Missouri.
Ashcar, Chas. J.	Missouri.
Arnold, U. S. G.	Missouri.
Auler, E. B.	Missouri.
Amos N. W.	Missouri.
Bryan, G. G.	Missouri.
Bechtold, A. F.	Illinois.
Bryan, R. S.	Missouri.
Binney, Robt.	Illinois.
Bradley, T. L.	Missouri.
Bruehmann, C. C. L.	Missouri.
Burke, C. J. M.	Illinois.
Bittman, E. J.	Missouri.
Baumgarten, W.	Missouri.
Breath, W. P.	Texas.
Barnett, I. N.	Missouri.
Bassell, W. B.	Missouri.
Bottom, E. H.	Illinois.
Ball, B. W.	Arkansas.
Clarke, B. W.	Missouri.
Coppedge, W. E.	Missouri.
Coleman, J. E.	Missouri.
Clark, W. A.	Missouri.
Currie, D. H.	Missouri.
Cowan, R. M.	Missouri.
Cross, W. W.	California.
Calhoun, J. G.	Louisiana.
Crissman, T. L.	Missouri.
Cravens, J. A.	Arkansas.
Drechsler, Louis	Missouri.
Dean, J. McH.	Missouri.
Duckworth, F. M.	Missouri.

NAME.	RESIDENCE.
Digges, W. L.	Missouri.
De Lisser, G. M.	Missouri.
Eimbeck, W. F.	Missouri.
Earley, J. F.	Missouri.
Eberlain, E. W.	Missouri.
Ferrel, H. E.	Missouri.
Filley, V. G.	Missouri.
Fahnestock, C. L.	Illinois.
Greiner, T.	Missouri.
Goodrich, C. F., Jr.	Missouri.
Green, John, Jr.	Missouri.
Ghio, J. P.	Missouri.
Graves, J. B.	Missouri.
Hemplemann, L. H.	Missouri.
Hicklin, F. E.	Missouri.
Hopping, O. P.	Nebraska.
Harris, T. E.	Missouri.
Hart, O. B.	Missouri.
Hardin, W. R.	Missouri.
Hays, W. P. H.	Missouri.
Hastings, W. E.	Indiana.
Hovey, W. C.	Illinois.
Hilgard, G. E.	Illinois.
Hartmann, J. A.	Missouri.
Heeley, O. J.	Illinois.
Hall, R. L.	Texas.
Irwin, Lee	Illinois.
Jackson, C. B.	Missouri.
Jones, J. F.	Missouri.
Joblin, W. R.	Arkansas.
Kuhls, F. G.	Illinois.
Kuhlmann, F. C. E.	Missouri.
Lanning, R. W.	Missouri.
Leach, H. F.	Missouri.
Lademan, C. E.	Wisconsin.
Massie, J. G.	Illinois.

NAME.	RESIDENCE.
Manzke, W. F.	Missouri.
Marple, H. N.	Missouri.
Matthews, J. A.	Illinois.
McCormick, J. E.	Missouri.
Meloan, J. F.	Illinois.
Morrison, C. S.	Missouri.
Montague, H. L.	Illinois.
Ogle, O. L.	Illinois.
Palmer, F. W.	Illinois.
Pemberton, E. P.	Montana.
Paschall, N. J., Jr.	Kentucky.
Printz, F. C. W.	Missouri.
Quinan, C.	California.
Richards, E. E.	Missouri.
Rose, W. J.	Illinois.
Romero, F. B.	New Mexico.
Stewart, S. S.	Missouri.
St. Clair, R. L.	Missouri.
Smith, U. S.	Missouri.
Smith, H. S.	Texas.
Sauer, W. E.	Illinois.
Sahlender, O. L.	Illinois.
Schuricht, G. M.	Missouri.
Simpson, B. S.	Missouri.
Scott, B. L.	Texas.
Shelton, J. B.	Alabama.
Semple, N. M.	Missouri.
Slusher, E. W.	Missouri.
Scherrer, E. A.	Colorado.
Scudder, D. A.	Indiana.
Snell, M. W.	Illinois.
Stewart, F.	Missouri.
Smith, C. G.	Missouri.
Steele, A. D.	Illinois.
Smith, S. D.	Missouri.
Thierry, C. W., Jr.	Missouri.

NAME.	RESIDENCE.
Taphorn, H.	Illinois.
Vogel, A. B.	Missouri.
Wright, R. G.	Missouri.
Wilson, A. M.	Missouri.
Wilson, R. E.	Illinois.
Wilkenson, G. E.	Illinois.
Wright, U. S.	Missouri.
West, W.	Illinois.
Zimmermann, C. A. W.	Illinois.
Zimmermann, E.	Illinois.
Zimmermann, Wm.	Illinois.

With the close of the annual session of 1891-92 the St. Louis Medical College celebrated its semi-centennial. Organized in 1842 as the Medical Department of St. Louis University, and working since 1855 under an independent charter, the continuity of its annual courses of instruction has been uninterrupted and the standard of its requirements for graduation has been steadily advanced. Under an ordinance enacted April 14, 1891, the St. Louis Medical College became the Medical Department of Washington University.

CONDITIONS OF ADMISSION.

Candidates for admission to the College will be received upon the presentation of a degree in Letters or Science from a College or Scientific School, of a certificate of graduation from a High School, or of a first grade teacher's certificate; or upon passing an examination on the branches of a good English education, including Mathematics, English Composition, and General Physics.*

Students who have attended one course of lectures in an accredited regular School of Medicine, or who are graduates of an approved School of Biology, may enter the Middle Class upon examination in the studies of the Junior year.† Students who have attended two such courses of lectures may enter the Senior Class upon examination in the studies of the Junior and Middle Years.

* Students are advised to conform to the rules of the Board of Health of the State in which they intend to practice.

† Students from other colleges who fail to pass in some of the Junior examinations may be received into the Middle class *on condition* that they pass these examinations at the end of the Middle year.

COURSE OF STUDY.

An obligatory graded course of study, covering three college years, was established by the St. Louis Medical College in 1880. The length of the annual session has since been extended to seven calendar months, and the course of instruction has been greatly enlarged. To students fitted by preparatory training to pursue a comprehensive and thorough course of medical study, this College offers exceptional opportunities.

The distinctive feature of the perfected curriculum of the St. Louis Medical College is its recognition of systematic practical work, by every student, as the necessary ground-work of medical study. To this end all the courses of instruction have been thoroughly revised; the time devoted to Practical Anatomy has been greatly increased; full laboratory courses have been organized in Chemistry, Histology, Medical Chemistry, Pathological Anatomy and Histology, and Bacteriology; and graded practical courses have been established in the methods of Physical Diagnosis, and in the examination of patients in all the general and special clinics of the College.

THREE YEARS' COURSE.

Attendance on Three Annual Sessions of two Semesters each, is required of all candidates for the degree of Doctor of Medicine. The studies are graded throughout the course, and are so arranged that the work of each semester constitutes a necessary introduction to that of each succeeding semester.

The JUNIOR YEAR is largely devoted to practical LABORATORY WORK; didactic teaching and the study of text-books being supplemented, throughout, by demonstrative and practical courses. In the MIDDLE YEAR laboratory work is continued, and the study of Medicine and Surgery is begun. Particular attention is paid in this year to the practical training of each student in Diagnosis. In the SENIOR YEAR the courses of lectures are continued in all the general and special departments of Medicine and Surgery, and the number of clinical exercises is very largely increased. Students are required to perform a prescribed amount of Dissection during each year. In this year Bacteriology is especially studied, in its relation to pathology; the methods of culture, and of staining and mounting, are taught practically in the Bacteriological Laboratory.

At the close of the SENIOR YEAR the student may become a candidate for the degree of DOCTOR OF MEDICINE.

FOUR YEARS' COURSE.

Having completed the work of the Senior Year and passed in all the required subjects of the Junior and Middle Years, the student may defer his application for the degree of Doctor of Medicine to the end of the FOURTH YEAR, during which the instruction will be largely in the special branches of Medicine and Surgery, and include special training in the use of instruments of precision, such as the Ophthalmoscope, the Laryngoscope, etc., in the methods of practical Gynæcology, in the therapeutic applications of Electricity, and in other

practical work connected with the special subjects included in the course. Advanced instruction will be given in the laboratories of Histology, Bacteriology, and Pathology.

At the close of the FOURTH YEAR the student may take the final examination for the degree of DOCTOR OF MEDICINE.

FOUR YEARS, ADVANCED COURSE.

The Fourth Year, Advanced Course, is opened to all students who, having completed the work of the Senior Year, have passed in their examinations in all the required subjects of the Junior and Middle Years. Special clinical facilities, and opportunities for advanced work in all the laboratories of the College, will be afforded to those taking this course.

At the close of the Fourth Year, Advanced Course, the student may become a candidate for the degree of Doctor of Medicine, *cum laude*, or, in the case of his attaining to preëminent rank in his examinations, he may be graduated *summa cum laude*.

• POST-GRADUATE COURSE.

Physicians, graduates of an accredited regular school of medicine, are admitted to any of the courses of instruction given in this College, subject to such restrictions as may grow out of the assignment of hours in the programmes of work laid out for the several classes, and to the single further restriction that, in the case of those desirous of taking advanced laboratory work, such proficiency in elementary work as may be necessary to its

successful prosecution will be required. A certificate of actual attendance will be given upon request. Physicians who desire to become candidates for the degree of Doctor of Medicine in this College must enter the College in September, and must take, with the Senior Class, the course of instruction comprised in the list of studies of the Senior Year.

COURSE OF INSTRUCTION.

The course of instruction embracing three years is divided into six semesters the first semester of each year ending at Christmas, the second semester beginning with the New Year.

JUNIOR YEAR.

FIRST SEMESTER.

		Hours a Week.
<i>Chemistry.</i>	General Elementary*	Lectures and Conference 3
" " "	. . . . .	Laboratory 4
<i>Anatomy.</i>	Osteology and Syndesmology†	Lect. 3
	Descriptive Anatomy	Lect. 3
	Comparative and Practical Anatomy	Lab. 8
<i>Histology.</i>	Practical Work in Laboratory	Lab. 6
<i>Materia Medica</i> *	Demonstrations and Lectures.	3

SECOND SEMESTER.

<i>Chemistry.</i> †	Qualitative Analysis	Lab. 7
<i>Anatomy.</i>	Descriptive Anatomy*	Lect. 3
	Practical Anatomy	Lab. 8
<i>Histology.</i> †	Practical Work	Lab. 6
<i>Physiology.</i>	With Demonstrations	Lect. 3
<i>Normal Auscultation and Percussion</i>	Practical Exercises.	2
<i>Surgical Dressings</i>	Practical Exercises.	1

Students are required to pass in the subjects upon which examinations are appointed to be held in the *Junior Year*, before entering on the work of the *Middle Year*.

* Examination in this branch is held about the end of the semester.

† Final Examination at end of the semester.

MIDDLE YEAR.

THIRD SEMESTER.

	Hours a Week.
<i>Anatomy.</i> Descriptive Anatomy	Lect. 3
Practical Anatomy, as prescribed.	
<i>Physiology.</i> † With Demonstrations	Lect. 4
<i>Urinology.</i> Practical Work	Lab. 4
<i>Pathological Anatomy and Histology</i>	Lect. 2
Practical Work	Lab. 4
<i>Therapeutics</i>	Lect. 3
<i>Physical Diagnosis</i>	Practical Exercises. 3
<i>Practice of Medicine</i>	Lect. 3
<i>Diseases of Children</i>	Lect. 2
<i>Principles and Practice of Surgery</i>	Lect. 3
<i>Clinics.</i> General Medical Clinics	Clin. 1
General Surgical Clinics	Clin. 3

FOURTH SEMESTER.

<i>Anatomy.</i> Descriptive Anatomy†	Lect. 3
Practical Anatomy, as prescribed.	
Regional Anatomy†	Lect. 2
<i>Pathological Anatomy and Histology</i>	Lect. 2
Practical Work	Lab. 4
<i>Therapeutics</i>	Lect. 1
<i>Practice of Medicine</i> *	Lect. 3
<i>Clinical Medicine</i>	Lect. 1
<i>Diseases of Children</i>	Lect. 2
<i>Diseases of the Nervous System</i>	Lect. 2
<i>Principles and Practice of Surgery</i>	Lect. 3
<i>Ophthalmology</i>	Lect. 1
<i>Clinics.</i> General Medical	Clin. 2
General Surgical	Clin. 5
Diseases of Children	Clin. 1
Diseases of Nose, Throat and Chest	Clin. 1
Diseases of the Genito-Urinary Organs	Clin. 2
Gynaecological	Clin. 1
Diseases of the Ear	Clin. 1
Orthopaedic	Clin. 1

Students are required to pass in the subjects upon which examinations are appointed to be held in the *Middle Year*, before entering on the work of the *Senior Year*.

* Examination in this branch is held about the end of the semester.

† Final Examination at end of the semester.

SENIOR YEAR.

FIFTH SEMESTER.

	Hours a Week.
<i>Anatomy.</i> Practical Anatomy, as prescribed.	
<i>Principles of Medicine</i>	Lect. 1
<i>Practice of Medicine</i>	Lect. 3
<i>Clinical Medicine</i>	Lect. 1
<i>Principles and Practice of Surgery.</i> (Optional)	Lect. 3
<i>Diseases of the Genito-Urinary Organs</i>	Lect. 2
<i>Ophthalmology</i>	Lect. 1
<i>Obstetrics</i>	Lect. 3
<i>Gynaecology</i>	Lect. 1
<i>Hygiene</i> †	Lect. 2
<i>Clinics.</i> General Medical	Clin. 2
General Surgical	Clin. 5
Diseases of Children	Clin. 1
Diseases of Nose, Throat and Chest	Clin. 1
Diseases of the Nervous System	Clin. 1
Diseases of the Genito-Urinary Organs	Clin. 3
Syphilitic Affections	Clin. 1
Gynaecological	Clin. 2
Diseases of the Eye	Clin. 1
Diseases of the Ear†	Clin. 1
Orthopædick†	Clin. 1
Diseases of the Skin	Clin. 1
Obstetrical Clinic, as appointed.	

SIXTH SEMESTER.

<i>Anatomy.</i> Practical Anatomy, as prescribed	
<i>Bacteriology.</i> † Practical Work	Lab. 4
<i>Principles of Medicine</i> †	Lect. 1
<i>Practice of Medicine</i> †	Lect. 3
<i>Clinical Conference</i>	Clin. 2
<i>Principles and Practice of Surgery</i> † (Optional)	Lect. 3
<i>Special Fractures and Dislocations</i> †	Lect. 2
<i>Syphilis</i>	Lect. 1
<i>Obstetrician</i>	Lect. 3
<i>Gynaecology</i> †	Lect. 2
<i>Forensic Medicine</i> †	Lect. 2
<i>Clinics.</i> General Medical	Clin. 2
General Surgical†	Clin. 3
Diseases of Children†	Clin. 1

	Hours a Week.
Diseases of the Nervous System†	Clin. 1
Diseases of the Genito-Urinary Organs†	Clin. 1
Syphilitic Affections	Clin. 1
Gynaecological	Clin. 1
Diseases of the Eye†	Clin. 1
Diseases of the Skin†	Clin. 1
Obstetrical Clinic, as appointed.	

† Final Examination at the end of the semester.

Students taking a *Four Years Course* will postpone their examinations in Diseases of the Ear and Orthopaedic Surgery to the end of the seventh semester, and those in Gynaecology, Diseases of the Genito-Urinary Organs, Diseases of the Nervous System, Diseases of the Eye, and Diseases of the Skin, to the end of the Fourth Year.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE.

(1) The candidate must be twenty-one years of age, and of good moral character.

(2) He must have studied medicine four years and attended not less than *three* regular annual courses of medical instruction, the last of which must have been the Senior, or the Fourth-Year course of this College.

(3) He must, by the first of April, have notified the Dean, in writing, of his intention to present himself for examination.

(4) He must have passed a satisfactory examination in all the required subjects of the curriculum.

The faculty recommend the student to postpone his application for the degree until the end of a fourth collegiate year.

THE FOURTH YEAR, ADVANCED COURSE.

The Fourth Year, Advanced Course, is open to students and physicians, who have attended the Senior Year in this College, and who have, before the beginning of the Fourth Year, passed a satisfactory examination in all the required studies of the Junior and Middle Years.

Graduates of other accredited medical schools, of three or more years' standing, may enter the Advanced Course by passing a satisfactory examination in all the required studies of the Junior and Middle Years.

THE DEGREE OF DOCTOR OF MEDICINE, *Cum Laude*.

The degree of Doctor of Medicine, *cum laude*, is conferred on Fourth Year advanced students, who, having passed in all the required subjects of the four years, shall have attained an average of seventy-five per cent.

Applicants for this honor, who, having fulfilled all requirements, shall have attained an average of ninety per cent, shall receive the degree of Doctor of Medicine *summa cum laude*.

Applicants who fall below the required percentage in the examination for these higher degrees, but whose average justifies their graduation, shall receive the degree of Doctor of Medicine.

Students who have been admitted to the Fourth Year, Advanced Course, and who intend to become candidates for the degree of Doctor of Medicine, *cum laude*, must notify the Dean, in writing, of such intention by the first of April of the Fourth Year.

FEES.

Matriculation Fee (paid but once)	\$5 00
Fee for the Junior, Middle and Senior Years, each . . .	90 00
Fee for the Fourth Year, Advanced Course	90 00
For laboratory supplies and use of anatomical material, payable with the tuition fee, each year	10 00

No charge is made for demonstrator's or hospital tickets, or for graduation.

The matriculation fee (\$5.00), and the fees for the year, are payable to the Dean at the time of matriculation, at the beginning of the college year, in September.

Students are required to provide themselves with such articles of chemical apparatus as test-tubes, watch-glasses, small

evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

All indebtedness to the College must be discharged before entering on the final examination for graduation.

NOTE.— Graduates of the St. Louis Medical College have perpetual free admission, but will be charged a laboratory fee of \$20.00.

Graduates, under three years, of other medical schools, will be charged the matriculation fee and twenty dollars, for attendance during a college year or part of a year; they will also be charged a laboratory fee of \$20.00.

Graduates of other medical schools of three or more years' standing, will be charged the matriculation fee and the laboratory fee of \$20.00.

Graduates in medicine who may be admitted to the College as candidates for a degree will be charged the matriculation fee and the fees for one year.

Special courses of instruction can be arranged with the Dean.

TEXT-BOOKS.

The names of works recommended as Text-Books are printed in *italic* type, those recommended for reference, in light-faced type,— latest editions being understood.

CHEMISTRY.

Newth's Text-Book of Inorganic Chemistry. Lecture Notes. Laboratory Notes. Simou's Manual of Chemistry.

ANATOMY.

Gray's Anatomy, or Morris' Human Anatomy. Treves' Surgical Applied Anatomy. Quain's Anatomy. Holden's Osteology. Holden's Guide to Dissections.

HISTOLOGY.

Piersol's Text-Book of Normal Histology.

PHYSIOLOGY.

Foster's Text-Book of Physiology.

MATERIA MEDICA AND THERAPEUTICS.

H. C. Wood's Therapeutics. Thornton's Dose Book and Manual of Prescription Writing. United States Dispensatory.

PATHOLOGICAL ANATOMY AND HISTOLOGY.

Payne's Manual of General Pathology.

BACTERIOLOGY.

Abbott's Principles of Bacteriology.

MEDICINE.

Osler's Principles and Practice of Medicine. *Loomis's Physical Diagnosis.* Vierordt's Medical Diagnosis. Da Costa's Medical Diagnosis. Pepper's System of Medicine by American Authors.

DISEASES OF THE NERVOUS SYSTEM.

L. C. Gray's Text-Book on Nervous and Mental Diseases.

DISEASES OF CHILDREN.

Rotch, Diseases of Children, or Starr's American Text-Book of Diseases of Children.

SURGERY.

American Text-Book of Surgery. Dennis' System of Surgery. Stimson on Fractures and Dislocations.

The Professor of Principles and Practice will announce text-books during the course.

OBSTETRICS.

Playfair's System of Midwifery. Parvin's Obstetrics. Lusk's Obstetrics. Boisliniere on Obstetrical Emergencies and Operations.

GYNAECOLOGY.

Thomas and Mundé on Diseases of Women. American Text-Book of Gynaecology. Mann, American System of Obstetrics and Gynaecology.

GENITO-URINARY DISEASES.

Morrow's System of Genito-Urinary Diseases. Keyes's Genito-Urinary Diseases, with Syphilis. Ultzmann on Pyuria.

OPHTHALMOLOGY.

Noyes. Norris and Oliver. Fuchs.

OTOTOLOGY.

Buck's Manual of Diseases of the Ear. Burnett's Treatise on the Ear. Field's Diseases of the Ear. Politzer's Diseases of the Ear.

DERMATOLOGY.

Crocker's Treatise on Diseases of the Skin.

HYGIENE.

Rohé's Text-Book of Hygiene.

FORENSIC MEDICINE.

Withaus & Becker's Medical Jurisprudence, Forensic Medicine and Toxicology.

ORTHOPÆDIC SURGERY.

Bradford and Lorette, Orthopædic Surgery.

SCHOLARSHIPS.

1. The HENRY HITCHCOCK SCHOLARSHIP is held by Hon. Henry Hitchcock, and entitles the beneficiary to free admission to the class which his other qualifications will enable him to enter.

2. The **GEORGE F. GILL SCHOLARSHIP**, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Diseases of Children, entitles the holder to one year's free tuition.

PRIZES.

Two "GEORGE F. GILL" prizes are offered to the students of the St. Louis Medical College, viz.:

1. One prize of \$50 to be awarded at the end of the Junior year to the member of the class who shall have done the best work in *Anatomy*.
2. One prize of \$50 to be awarded to the member of the graduating class of high general standing, who shall have done specially good work in the department of *Diseases of Children*.

In March, 1895, the George F. Gill prize in anatomy was awarded to Mr. William Alfred Clark; the prize for meritorious work in the study of diseases of children, to Dr. Peter Arnold.

Physicians who wish to receive the Annual Announcement of the St. Louis Medical College regularly, are requested to send their address to the Secretary of the Faculty, Dr. E. M. Senseney, No. 2829 Washington avenue; notice of change of residence is also desired. All further information may be obtained by addressing or calling upon the Dean.

DR. HENRY H. MUDD,
No. 2604 Locust street.

MISSOURI DENTAL COLLEGE.

(DENTAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

The THIRTIETH ANNUAL SESSION begins on Thursday, September 26th, 1895, and ends on Thursday, April 30th, 1896. Preliminary Examinations will be held on Tuesday, September 24th, and Wednesday, September 25th.

CHRISTMAS RECESS: Saturday, December 21st, 1895, to Thursday, January 2d, 1896.

COMMENCEMENT: Thursday, April 30th, 1896.

HOLIDAYS: Thursday of Fair week, Thanksgiving Day, Washington's Birthday.

The annual session for 1895-96 will be held in the College building, 1814 Lucas Place, in the immediate neighborhood of the University buildings and opposite the Museum and School of Fine Arts. Students on arriving in the city are requested to apply to the Superintendent of the Infirmary for information as to rooms, boarding, etc. Good board at a convenient distance from the College may be obtained at from five to seven dollars a week.

Dentists who wish to receive the Annual Announcement regularly, or those who have changed their address, are requested to notify the Secretary of the Faculty, Dr. A. H. FULLER, Columbia Building, southeast corner Eighth and Locust streets.

Any further information may be obtained by addressing or calling upon the Dean,

HENRY H. MUDD, M. D.,
2604 Locust Street.

MISSOURI DENTAL COLLEGE.

BOARD OF OVERSEERS.

JAMES E. YEATMAN, President.
HENRY HITCHCOCK.
CARLOS S. GREELEY.
HENRY H. MUDD, M. D., Treasurer.
ALBERT H. FULLER, D.D.S , Secretary.
HENRY J. McKELLOPS, D.D.S.
JAMES B. NEWBY, D.D.S.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor of the University.

ELISHA H. GREGORY, M. D., LL.D.,
Professor of the Principles and Practice of Surgery.

ALBERT H. FULLER, M. D., D.D.S., Secretary,
Professor of Operative Dentistry.

HENRY H. MUDD, M. D., Dean,
Professor of Clinical Surgery.

ORION W. BEDELL, M. D., D.M.D.,
Professor of Mechanical Dentistry.

PAUL Y. TUPPER, M. D.,
Professor of Descriptive Anatomy.

EDGAR M. SENSENEY, M. D.,
Professor of Therapeutics and Materia Medica.

CHARLES R. SANGER, A. M., Ph. D.,
Professor of Chemistry.

SIDNEY P. BUDGETT, M. D.,
Professor of Physiology and Histology.

JOSEPH B. KIMBROUGH, D.M.D.,
Superintendent of Infirmary.

LECTURERS.

**JOHN G. HARPER, D.D.S.
HENRY M. BAIRD, D.D.S.
JAMES B. VERNON, D.D.S.**

DEMONSTRATORS.

Of Anatomy.
**E. H. GREGORY, JR., M. D.
V. P. BLAIR, M. D.
H. L. NIETERT, M. D.
HORACE W. SOPER, M. D.**

Of Mechanical Dentistry.
WILLIAM JAMES LARK.

Of Operative Dentistry.
JOHN WETMORE MARSH.

CLINICAL INSTRUCTORS.

**WILLIAM N. MORRISON, D.D.S.
GEORGE A. BOWMAN, D.D.S.
JAMES W. WICK, D.D.S.
JAMES B. NEWBY, D.D.S.
HENRY M. BAIRD, D.D.S.
THEODORE L. PEPPERLING, D.D.S.
ABEL J. PROSSER, D.D.S.
PETER H. EISLOEFEL, D.D.S.
JOHN G. HARPER, D.D.S.
ORMOND H. MANHARD, D.D.S.
CARL E. SCHUMACHER, D.D.S.
PETER H. MORRISON, M. D., D.D.S.
ALBERT H. FULLER, M. D., D.D.S.**

DENTAL STUDENTS, SESSION 1895-96.

NAME.	RESIDENCE.
Alexander, A. C.	Missouri.
Bedell, C. T.	Missouri.
Brandenberger, H.	Missouri.
Bretelle, A. K.	Missouri.
Bellchamber, C. E.	Illinois.
Brite, E. M.	Missouri.
Brown, W.	Illinois.
Barnett, H. K.	Illinois.
Bagby, W. B.	Missouri.
Bartell, L. W.	Illinois.
Bragg, E. H.	Missouri.
Boothe, J. C.	Illinois.
Barry, B.	Illinois.
Blair, F. P.	Illinois.
Combs, J. A.	Illinois.
Crews, C. C.	Virginia.
Clark, H. T.	Missouri.
Carrell, O. V.	Iowa.
Cunningham, P. T.	Missouri.
Cook, H. M.	Iowa.
Drown, J. H.	Missouri.
Ellis, R. H.	Missouri.
Fristoe, T. P.	Missouri.
Fruth, O. J.	Missouri.
Foster, D.	Missouri.
Fitzgerald, M. M.	Missouri.
Fisher, H. M.	Ohio.
Frazee, D' L.	Illinois.
Fuller, A. D.	Missouri.
Fendler, M.	Missouri.
Frank, G. H.	Missouri.
Garrett, W. B.	Missouri.

NAME.	RESIDENCE.
Goode, J. S.	Indiana.
Gwinner, J. F.	Colorado.
Garcia, C. J.	Missouri.
Gardiner, W.	Missouri.
Hammond, H. B.	Missouri.
Houston, E. T.	Missouri.
Hisey, F.	Missouri.
Hume, E. J.	Missouri.
Hull, J. W.	Missouri.
Hesemann, C. E.	Illinois.
Hyndman, H. S.	Illinois.
Hudson, O.	Missouri.
Hugo, C. W.	Kansas.
Heatherly, W. E.	Missouri.
Jones, H. L.	Missouri.
Jolly, C. W.	Kansas.
Kimbrough, H. S.	Missouri.
Koch, H. F. W.	Missouri.
Loesch, G. W.	Missouri.
Lansdowne, G.	Missouri.
Lenze, P. W.	Missouri.
Lehmberg, H. A.	Missouri.
Leibrock, J. P.	Illinois.
Moore, E.	Missouri.
Morrow, E. D.	Missouri.
Mitchell, C. B.	Missouri.
Miller, T. C.	Missouri.
Niemeyer, E. L.	Illinois.
Niehoff, J.	Illinois.
Obrock, H. C.	Missouri.
Owen, G. H.	Missouri.
Owens, B. T.	Texas.
Pearce, G. D.	Missouri.
Pemberton, E. P.	Montana.
Pemberton, W. T.	Missouri.
Reisse, E. C.	Missouri.

NAME.	RESIDENCE
Rothschild, A.	Kansas.
Rawson, L. E.	Missouri.
Rapp, F. B.	Missouri.
Rhodes, N. G.	Missouri.
Rue, A. W.	Illinois.
Simmons, E. G.	Missouri.
Smith, J. D.	Missouri.
Sommers, C. E.	Missouri.
Smith, G. W.	Illinois.
Sandel, H.	Louisiana.
Smith, H. S.	Texas.
Schaer, C.	Missouri.
Schaer, A.	Missouri.
Schwaner, R. A.	Iowa.
Smith, E. H.	Missouri.
Stocker, D.	Missouri.
Sloan, J. M.	Missouri.
Sloan, C. W.	Missouri.
Stanza, N. B.	Missouri.
Tschirner, A. F.	Missouri.
Thompson, F. M.	Iowa.
Tuttle, W. M.	Missouri.
Urban, W. E.	Missouri.
Voyles, S. H.	Missouri.
Williams, S.	Missouri.
Widmann, R.	Missouri.
Waldschmidt, A. J.	Missouri.
Wallace, M. S.	Missouri.
Wharton, C. H.	Iowa.
Woelk, R. D.	Illinois.
Wallace, W. S.	Illinois.
Wieser, F. J.	Illinois.
Yeargain, G. W.	Missouri.

REQUIREMENTS FOR ADMISSION.

Every candidate for admission must present to the Faculty satisfactory evidence of a good moral character. He must have a good English education, as evidence of which a diploma from a reputable literary institution, a teacher's certificate or other evidence of qualification will be accepted, in conformity with the requirements of the National Association of Dental College Faculties. If he have neither of these, he may be admitted to the College upon passing a written examination before the Examining Committee of the Faculty on the following subjects:

Orthography, English Grammar, Arithmetic, Geography, American History and Elementary Physics. He will also be required to write a Composition of a given number of words, on some common subject.

Those expecting to take this examination should carefully prepare themselves prior to coming before the committee. This may be done by home study or attendance at night schools.

A series of questions will be presented embracing the subjects given above; and the applicant will be required to make an established grade in answering them.

For Text-Books he is referred to any standard works.

Students who have attended two courses of lectures in an accredited school of dentistry, may enter the Senior Class of the session of 1895-96 upon presentation of a certificate of such attendance. The Faculty reserves the right to require an examination.

Graduates of reputable medical schools may matriculate as Second Year students without examination.

As the course of instruction has been divided in such a way as to cover the entire session, and is a graded course, it is considered very important that students shall be in attendance the first day of the term.

THREE YEARS COURSE.

Attendance on three annual sessions is required of all candidates for the degree of Doctor of Dental Medicine.

LECTURES.

The course of lectures included in the curriculum of this College has been so classified and arranged as to give the student the best facility for gaining a thorough knowledge of the branches taught. Two or more of the studies embraced in the separate courses will be completed during each year, and consequently the students will be free to pursue the remaining studies in the succeeding years.

A portion of the lectures to dental students is given in the St. Louis Medical College, in connection with the medical classes, furnishing a rare opportunity for the dental student to acquire the comprehensive knowledge of the science of medicine, so indispensable to the successful practice of any specialty.

The Museum, Anatomical Rooms and Chemical Laboratory of the St. Louis Medical College are as free to the dental as to the medical student. The arrangement with this institution is such, that by taking a few additional

branches in connection with the work of three dental terms, the dental student may qualify himself for admission to the Senior Class in the Medical College, and may then become a candidate for the degree of Doctor of Medicine at the close of the term in the following April.

In addition to the regular course of instruction, there will be clinical lectures and demonstrations by a number of dentists, eminent in the profession as successful practitioners.

INFIRMARY.

The College Infirmary, under the direction of the Superintendent, Dr. Joseph B. Kimbrough, and the demonstrators, will be open daily, furnishing ample opportunity for instruction in practical dentistry. The Surgical Clinics at the City, Sisters', St. Luke's and other hospitals, and at the College Dispensary, afford opportunities for instruction that cannot be found except in large cities.

The record of the Infirmary work of the Senior Class for the past year shows the amount of clinical material furnished the student.

Gold Fillings made . . .	1306	Gold Plates	16
Amalgam " " . . .	1067	Gold Crowns	87
Other " " . . .	102	Richmond Crowns . . .	92
Teeth Extracted . . .	3315	Bridges	35
Rubber Plates	181		

DENTAL OPERATING ROOM.

This room, 84'x26', having one side of continuous windows reaching from floor to ceiling, fitted with Mor-

rison chairs, brackets, spittoons, and wall cabinets to hold student's entire operating outfit, makes an ideal place for the student to learn the practical part of his profession.

Special efforts will be made in the Surgical Clinics, to demonstrate surgical diseases of the mouth, and lectures on tumors of the jaw will be given.

The Superintendent, Dr. J. B. Kimbrough, will be in daily attendance at the Infirmary.

A progressive course of Clinical Lectures accompanied with practical demonstrations will be given covering the entire field of prosthesis and orthodontia.

The Junior and Middle classes will be divided into sections and each individual student required to perform under the eye of the Superintendent or his assistants, the successive steps as presented, and no student will be allowed to take up new work until he has mastered the technique of the old. By the observance of this rule, the student at the end of the three years' course will be as well qualified practically, as graduates heretofore have been theoretically.

A large Clinic is already established at the new Infirmary, supplying abundant material for practical work in operative dentistry, prosthesis and orthodontia.

MECHANICAL DENTISTRY.

This branch is taught theoretically and practically by the Professor, as well as by the Demonstrators and Clinical Instructors, who give the practical work in the laboratory and at the chair. It embraces the following

subjects: metals employed in dental laboratory operations, observations on fuels, and the various appliances used in generating and applying heat.

The refining of gold; making alloys of gold and converting them into the required forms for dental purposes.

The working of silver; platinum and the platinoid metals, aluminum, copper, zinc, lead, tin, antimony and bismuth. The general properties of alloys, their treatment and behavior in the process of compounding.

The treatment of the mouth preparatory to the insertion of artificial dentures. The materials, appliances and methods employed in obtaining impressions of the mouth. Plaster models. Metallic dies and counter-dies. Partial dentures retained in the mouth by means of clasps attached to the natural teeth or their roots. Entire and partial dentures supported in the mouth by atmospheric pressure or adhesion. *Aesthetic* requirements in the selection and arrangement of the teeth of replacement.

Defects of the palatal organs and their treatment by artificial means. Regulating teeth and appliances for same.

DENTAL SCIENCE.

This course embraces lectures on the special and minute anatomy of the head, face and oral cavity. The origin and development of the teeth, normal and abnormal, including their histological characteristics. Eruption of the teeth and the diseases incident thereto. The pathological relations of the teeth to other parts of the human organism, together with the symptoms, causes, and treat-

ment of diseases which involve the dental structures, viz.: inflammatory action affecting these various tissues, diseases of the dental pulp, periodontitis, alveolar abscess, pyorrhœa alveolaris, exostosis, caries, necrosis, etc.

A classification of the remedial agents, local and systemic, employed in dental practice, giving their properties and therapeutic effects whether applied locally or otherwise.

OPERATIVE DENTISTRY.

The lectures will embrace a description of the teeth and their surfaces, the causes and effects of dental caries. Means and methods at present in use for the preservation of the teeth, crown and bridge-work, and all operations that pertain to operative Dental Surgery.

Careful consideration will be given the instruments and appliances used in operations upon the teeth, as well as the different materials used for stoppings.

SCHEDULE OF STUDIES.

FIRST OR JUNIOR YEAR.

Completed the First Year.

Dental Anatomy.

Materia Medica.

Comparative Anatomy, with Dissection.

Subjects Taken First Year and Continued During Second Year.

Descriptive Anatomy.

Practical Anatomy.

herapeutics.

Mechanical Dentistry.

Dental Technology, Lecture and Laboratory Work.

Metallurgy.

SECOND OR MIDDLE YEAR.

Subjects Completed the Second Year.

Descriptive Anatomy.

Therapeutics.

Chemistry.

Mechanical Dentistry.

Metallurgy.

Orthodontia.

Subjects Taken Second Year and Continued During Third Year.

Physiology.

Operative Dentistry.

Institutes of Dental Science.

THIRD OR SENIOR YEAR.

Subjects Completed the Third Year.

Physiology.

Hygiene.

Surgery and Clinical Surgery.

Operative Dentistry.

Institutes of Dental Science.

EXAMINATIONS.

I.— OF THE JUNIOR YEAR:

- (1) In *Anatomy*: (a) Dental Anatomy;
(b) Practical Anatomy;

- (2) In *Materia Medica and Therapeutics*:

- (a) General properties of drugs.

Students are required to pass in the subjects upon which

examinations are appointed to be held at the end of the *Junior* year, before entering upon the work of the *Middle* year.

II.— OF THE MIDDLE YEAR:

- (1) In *Anatomy*: (a) Descriptive Anatomy;
- (2) In *Materia Medica and Therapeutics*:
 - (b) Therapeutics;
- (3) In *Chemistry*: (a) General Chemistry, written (in January);
 - (b) Qualitative, Practical.
- (4) In *Mechanical Dentistry*:
 - (a) Final Examination.

Students are required to pass in the subjects upon which examinations are appointed to be held at the end of the *Middle* year, before entering upon the work of the *Senior* year.

III.— OF THE SENIOR YEAR:

- (5) *Physiology*.
- (6) *Principles and Practice of Surgery*.
- (7) *Operative Dentistry*.
- (8) *Institutes of Dental Science*.

REQUISITES FOR THE DEGREE OF DOCTOR OF DENTAL MEDICINE.

The candidate for graduation must be twenty-one years of age.

He must have attended three regular annual courses (no two courses of which shall have been taken during the same year) of dental instruction, the last of which must have been the Senior Course of this College.

He must treat thoroughly patients requiring all the usual dental operations, and under the eye of the demonstrator or superintendent of the Infirmary, construct a

variety of practical artificial cases. He must undergo a satisfactory examination on all the branches taught in the College.

Graduates of reputable medical colleges will be admitted to the second-year course and will be excused from lectures and examinations upon general anatomy, general pathology, chemistry, physiology and *materia medica* and therapeutics, but will be required to take the courses in operative and prosthetic technics; and must undergo a satisfactory examination in these branches.

Application for examination for the degree of D.M.D. must be made in writing by the 1st of March, in each year, stating the claims of the applicant for such a degree.

FEES.

Matriculation Fee (paid but once)	\$ 5 00
Tickets for the Course	90 00
Laboratory Supplies and Anatomical Material	10 00
Total fee for Tuition	100 00
No charge for demonstrator's ticket or diploma.	

INSTRUMENTS.

Students will be required to provide themselves with the necessary instruments and tools for operative and mechanical work. Arrangements have been made to furnish these outfits at special rates. The operating rooms and laboratory at the Infirmary are amply supplied with stationary furniture, such as chairs, lathes, benches, furnaces, etc. Students are required to provide them-

selves with such articles of chemical apparatus as test-tubes, beakers, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

No student will be permitted to take final examination unless tuition fees have been paid.

TEXT-BOOKS.

LATEST EDITIONS ONLY.

Anatomy — Gray.

Chemistry — Long's Experimental and Analytical Chemistry.

Physiology — Foster's Text-Book of Physiology.

Dental Materia Medica — Gorgas.

Therapeutics — H. C. Wood's.

Principles and Practice of Dentistry — Harris.

Mechanical Dentistry — Richardson.

Orthodontia — Guilford, Farrar, Angle.

Surgery — An American Text-Book of Surgery. Keen and White.

Operative Dentistry — Taft.

Dental Anatomy and Pathology — Bödecker. Tomes.

Methods of Filling Teeth — Ottolengui.

Histology — Piersol.

Crown and Bridge Work — Evans

Books of Reference — American System of Dentistry; Harris Dental Dictionary; Garretson or Tomes Dental Surgery; Talbot — Orthodontia; Kingsley and Coles — Oral Deformities; Newth's Inorganic Chemistry; Simon Manual of Chemistry.

PRIZES.

Prizes will be awarded for proficiency in the different branches taught in the College.

The Missouri Dental College Faculty Prize.—An elegant gold medal to the graduate receiving the highest vote on final examination.

The S. S. White Dental Manufacturing Company Prize.—A set of Varney Pluggers to the graduate excelling in Operative Dentistry.

The John Rowan Dental Depot Prize.—A No. 2 Bonwell Engine Mallet to the graduate standing second best in practical Operative Dentistry.

The St. Louis Dental Manufacturing Company Prize.—A laboratory lathe for the best specimen case of artificial teeth.

For further information concerning the Dental College apply to the Secretary of Washington University or to

DR. H. H. MUDD,
Dean of the Dental College,
2604 Locust St.

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SMITH ACADEMY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1895-1896.

ENTRANCE EXAMINATION, Monday, Tuesday, Wednesday, September 28, 24, 25.

FIRST TERM begins Thursday, September 26.

HOLIDAY, Thanksgiving Day, Thursday, November 28.

VACATION, December 21, 1895, to January 1, 1896, inclusive.

FIRST TERM ends Friday, January 31.

SECOND TERM begins Monday, February 3.

HOLIDAY, Washington's Birthday, Saturday, February 22.

UNIVERSITY HOLIDAY, Friday, May 8.

ENTRANCE EXAMINATION, Saturday, June 13.

GRADUATING EXERCISES, Tuesday, June 16.

VACATION, June 17 to September 24.

1896-1897.

ENTRANCE EXAMINATION, Monday, Tuesday, Wednesday, September 21, 22, 23.

FIRST TERM begins Thursday, September 24.

HOLIDAY, Thanksgiving Day, Thursday, November 26.

VACATION, December 24, 1896, to January 4, 1897, inclusive.

FIRST TERM ends Friday, January 29.

SECOND TERM begins Monday, February 1.

OFFICERS OF GOVERNMENT AND INSTRUCTION.

WINFIELD S. CHAPLIN, A. M.,
LL.D., Chancellor of the University . 3636 Pine st.
JOSEPH W. FAIRBANKS, A. M.,
Ph. D., Principal 3750 Lindell boul.
WILLIAM W. GALE, A. B., Teacher of
Greek 4265 Delmar boul.
CHARLES P. CURD, A. M., LL.B.,
Teacher of Latin. 5651 Von Versen av.
LOUIS L. HOOPER, A. B., Teacher of
Mathematics 408 N. Sarah st.
EDWARD F. JACKSON, A. B., E. M.,
Teacher of Chemistry and English
Literature 4400 Morgan st.
EDWARD P. DREW, A. B., Teacher
in charge of Third Year Class . . . 2935 Morgan st.
CLARENCE H. WOOLSEY, A. M.,
LL.B., Teacher in charge of Second
Year Class 352 Spring av.
EDMUND A. BURNHAM, A. B.,
Teacher in charge of First Year Class 3844 Delmar boul.
LUTHER E. SMITH, A. B., Teacher
of Higher English and Elocution . . 2910 Pine st.
EDWARD L. BURDICK, S. B., Teacher
of Physics, Algebra, and Drawing . . 3831 Morgan st.
HENRY A. BAKER, A. B., Teacher of
German 2910 Pine st.
GEORGE M. TUTTLE, A. B., M. D.,
Teacher of Physiology 2942 Washington av.
JULIUS C. HAINER, B. Sc., LL.B.,
Teacher of Civil Government . . . 7 N. Garrison av.

AUGUST H. MUEGGE, Teacher of
Gymnastics 2712 Franklin av.
WILLIAM F. HANCOCK, First Lieut.
Fifth U. S. Artillery, Teacher of Military Science and Tactics The Franklin.
WILLIAM H. POMMER, Teacher of Vocal Music 8709 Evans av.
MME. JUVET-KAUFMANN, Teacher of French 3200 Locust st.
MISS MABEL EVANS, Ph. B., Assistant Teacher of Second Year Class. . 4314 Washington boul.
MISS ANNA H. CHANDLER, Assistant Teacher of Second Year Class 5716 Cates av.
MRS. ANNA C. HILLMAN, Teacher in charge of Second Year Class, Preparatory Department Webster Groves.
MRS. ISABELLE H. LARE, Assistant Teacher in Preparatory Department . 3109 St. Vincent av.
MRS. OTTILIE A. ALOFS, Teacher in charge of First Year Class, Preparatory Department 4233 McPherson av.
MISS CLARA Y. VAN NORSTRAND, Assistant Teacher in Preparatory Department 3015 Lucas av.

SMITH ACADEMY.

HISTORICAL STATEMENT.

Smith Academy was founded in 1853, and was opened in the following year.

The Academy building now occupied was erected in 1878-79, and the name, **SMITH ACADEMY**, was given to the school in recognition of the munificence of James Smith and Persis Smith, his wife, from whom the whole amount (\$75,000) expended in the building, including the ground and furniture, was received.

ADMISSION.

ACADEMIC DEPARTMENT.

Pupils are admitted to the First Year Class at the age of eleven years, provided they can pass a satisfactory examination in reading, spelling, English language and composition, penmanship, geography, and arithmetic as far as percentage.

Pupils are admitted to any class, provided they can pass a satisfactory examination in the studies pursued by the class below the grade which they wish to enter. The courses of study as now arranged are sufficient to meet the requirements for admission to any college or scientific school.

No pupil will be received for less than one term, and no abatement in tuition will be made for absence, whether such absence occurs at the beginning, middle, or end of the term.

COURSES OF STUDY.

The courses of study in this Department are three in number. The Classical Course and the Course without Greek extend over six years; the Preparatory Scientific Course extends over five years. All the courses are identical during the first two years, but no pupil is required to take all the regular studies. At the beginning of the third academic year, those pupils who wish to prepare for the regular classical course in college and to obtain the regular college degree of Bachelor of Arts take the Classical Course; those who wish to prepare for the college course in Philosophy take the Course without Greek. This differs from the Classical Course only in substituting Science and Modern Languages for the Greek. The Preparatory Scientific Course includes all those studies which are required for admission to any polytechnic school.

COMMERCIAL CLASS.

Pupils who are able to spend but one or two years in school, and, for that reason, do not desire to enter upon one of the regular courses of study, are permitted, under the direction of the Principal, to select an equal amount of work from the regular studies with the addition of Book-keeping and to form a commercial class. The full Academic Course, although especially designed for those who intend to pursue the Collegiate Course, is nevertheless

recommended for those who are preparing for commercial life, unless lack of preparation prevents its adoption.

PREPARATORY DEPARTMENT.

To meet the wishes of a large number of parents, a Preparatory Department has been organized for boys eight to eleven years of age. It is placed under the immediate charge of competent ladies, but is under the general supervision of the Principal of the Academy. Pupils are admitted to this Department as soon as they have sufficient knowledge of reading and writing to enable them to commence the study of Arithmetic and Geography.

PHYSICS.

The physical laboratory, on the second floor of the building recently erected, is well supplied with apparatus to which additions are constantly being made. The laboratory is provided with lecture and working tables and affords abundant facilities for instruction by lectures and for practical work in experimental physics.

CHEMISTRY.

Excellent facilities are offered pupils for thorough instruction in general chemistry and qualitative analysis. The chemical laboratory is fitted with tables and apparatus for practical work, and instruction is given partly by recitation, partly by lectures, and partly by laboratory work.

DRAWING.

The drawing room is well lighted and furnished with drawing stands, models, and all necessary conveniences.

Free-hand and geometrical drawing may be taken, in addition to the regular studies, by the pupils of any class in which it is not already required. The Course in drawing may thus extend through a period of four years, beginning with the outlines and proportions of simple geometric figures, proceeding to the more complex and ornate forms of decorative art, and including the study of light and shade, with pencil and brush, both from the flat and the round, or the solid object. Geometrical drawing will include the use of instruments, scales, the more important problems in Plane Geometry, orthographic projections, intersections and development of surfaces, cast shadows, perspective, together with mechanical and architectural constructions.

GYMNASIUM.

On the first floor of the building recently erected is a large gymnasium, handsomely furnished with the most serviceable pieces of apparatus of modern pattern. Four sets of the larger apparatus are supplied, so that a class of sixty boys can all get sufficient exercise in a short time. Each class is sent to the gymnasium near the middle of the school session every day under the direction of a careful instructor. Every pupil, unless physically disabled and regularly excused at the request of parent or physician, is required to go with his class.

The object is to give a systematic physical training, not only to those who enjoy athletic sports and would practice them of their own accord, but also to the large number who neglect bodily exercise, unless an opportunity is furnished them. The effect upon the health and bearing

of the pupils, after a short trial, amply proves the wisdom of requiring daily gymnastics.

MILITARY SCIENCE AND TACTICS.

Instruction in Military Science and Tactics is given to the older classes in the Academy by First Lieut. William F. Hancock, of the Fifth United States Artillery.

Students enrolled in these classes constitute companies B and E of cadets in the Washington University Battalion, and the commissioned and non-commissioned officers are appointed from cadets enrolled in the companies.

Cadets are required to wear the prescribed uniform when receiving practical military instruction, but are not permitted to wear it at any other time. The cost of the uniform need not exceed fifteen dollars.

The regular military drill occurs immediately after the close of the afternoon session of the Academy, on two days of each week, and the time of the drill does not usually exceed one hour.

MONTHLY REPORTS.

Monthly reports will be made of the attendance, deportment, standing and general progress of each pupil, to which the attention of parents and guardians is specially invited. Pupils are expected to prepare at home a part of the lessons assigned for each day, and their hours of study should be regular and free from interruption.

Every absence from the regular exercises of the school is a serious hindrance to the progress of the individual pupil and the class to which he belongs, and sickness or some urgent necessity should be regarded as the only legitimate excuse.

DIPLOMAS.

Diplomas will be conferred upon those members of the class who have taken any one of the regular courses of study, and have passed satisfactorily the required examinations. Certificates will also be given on the same conditions, which entitle graduates to enter the corresponding course in the College or School of Engineering of Washington University without examination.

The courses of study in the Academy have been extended so as to include all the subjects required in the examinations for admission to the best colleges and scientific schools. The methods of instruction are such as prevail in the oldest and most popular preparatory schools of New England. The increasing demand for a school of high grade in St. Louis has been fully met, so that parents need not send their sons away from home at the most critical period of their lives, in order to have them prepared to enter the college of their choice. Although the Academy is especially designed to prepare students for the Undergraduate Department of Washington University, and a majority of its graduates enter that department, the training they receive has proved amply sufficient to satisfy the requirements of any college.

TUITION.

Preparatory Class, per term of 20 weeks	\$50 00
First Year " " "	. . . . . 50 00
Second Year " " "	. . . . . 50 00
Third Year " " "	. . . . . 55 00
Fourth Year " " "	. . . . . 62 50
Fifth Year " " "	. . . . . 75 00
Sixth Year " " "	. . . . . 75 00
Commercial " " "	. . . . . 75 00

These rates are for the current year only.

Bills are payable in advance.

No extra charge of any kind will be made.

N. B.—No pupil will be received for less than one term, and no abatement will be made for absence, whether such absence occurs at the beginning, middle, or end of the term.

GENERAL INFORMATION.

The school year consists of two terms of twenty weeks each. The Academy does not furnish text-books, but each pupil must provide for himself the books and necessary articles prescribed for the class to which he belongs.

The Academy has no dormitory system, but rooms and board for boys whose homes are not in the city may be obtained in private families at prices ranging from \$20 to \$30 a month. The Principal of the Academy will cheerfully give recommendations and assistance to parents who desire to obtain for their sons rooms and board in the city.

During the past year 310 pupils have been enrolled in the Academy.

COURSES OF STUDY.

CLASSICAL COURSE.

FIRST YEAR CLASS.

Mathematics — Robinson's Complete Arithmetic, beginning at Percentage; Stoddard's Mental Arithmetic.

History — Eggleston's History of the United States.

English Grammar — Whitney and Lockwood's.

French — Paul Bercy's *Livre Des Enfants*.

Physiology — Familiar Talks.

English Composition, Spelling, Penmanship, Drawing, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Longfellow's Paul Revere's Ride, The Building of the Ship, The Wreck of the Hesperus, and other short poems; Dickens' Christmas Carol; Irving's Sketch Book, Sleepy Hollow, and other selections; Hawthorne's Twice-Told Tales.

SECOND YEAR CLASS.

FIRST TERM.

Latin — Allen and Greenough's Grammar; Collar and Daniell's First Latin Book; or

* *German* — Collar's-Eysenbach's Grammar, with Exercises.

Mathematics — Robinson's Complete Arithmetic.

History — Myer's General History.

English Composition, Spelling, Penmanship, Drawing, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Gray's Elegy; Goldsmith's Deserted Village and The Traveler; George Eliot's Silas Marner; Longfellow's Evangeline.

SECOND TERM.

Latin — Grammar and Lessons; Easy Latin Stories; or

* *German* — Collar's-Eysenbach's Grammar; Prose Selections.

Mathematics — Elementary Algebra to Simple Equations.

History — Myer's General History completed.

Reading — Longfellow's Courtship of Miles Standish; Hawthorne's House of the Seven Gables; Webster's First Bunker Hill Oration; Dryden's Alexander's Feast.

* German may be substituted for Latin by pupils who do not intend to pursue the full course of study in preparation for college or scientific school.

THIRD YEAR CLASS.

FIRST TERM.

Latin — Cæsar's Gallic War, Books II., III.; Collar's Latin Composition.

Greek — Goodwin's Grammar; White's Beginner's Greek Book.

Mathematics — Elementary Algebra continued.

English Analysis, Rhetoric, Declamations, Compositions, Drawing, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Macaulay's Lays of Ancient Rome; Scott's Marmion; Irving's Alhambra; Tennyson's The Princess.

SECOND TERM.

Latin — Cæsar's Gallic War, Books I., IV.; Collar's Latin Composition; Exercises in reading and writing Latin at sight.

Greek — Grammar and Beginner's Greek Book continued.

Mathematics — Algebra completed.

Reading — Whittier's Snow Bound; Irving's Sketch Book; Scott's Lady of the Lake; Scott's Ivanhoe.

FOURTH YEAR CLASS.

FIRST TERM.

Latin — Cicero, Four orations against Catiline; Collar's Latin Composition; Exercises in reading and writing Latin at sight.

Greek — Xenophon's Anabasis; Greek Prose Composition.

Mathematics — Wentworth's Geometry, with original exercises.

German — Collar's-Eysenbach's Grammar, with Exercises.

Declamations, Compositions, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Pope's Iliad, Books I., VI., XXII., XXIV.; Carlyle's Essay on Scott; Byron's Fourth Canto of Childe Harold; Cooper's The Last of the Mohicans.

* German may be substituted for Latin by pupils who do not intend to pursue the full course of study in preparation for college or scientific school.

SECOND TERM.

Latin — Cicero, Orations for Manilian Law, Archias, and Marcellus; Cornelius Nepos; Latin at sight; Latin Composition.

Greek — Xenophon's *Anabasis* continued; Greek Prose Composition.

Mathematics — Wentworth's *Plane Geometry* completed.

German — Collar's Eysenbach's Grammar; Prose selections.

French — Chardenal, Part I.; Prose Selections.

Reading — Macaulay's *Essay on Lord Clive*; Scott's *Old Mortality*; Longfellow's *Evangeline*; Dryden's *Palamon and Arcite*.

FIFTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Aeneid*, Books I., II.; Latin Composition; Exercises in reading and writing Latin at sight.

Greek — Selections from *Hellenica* or *Cyropedia*, and other Attic Prose; Greek Prose Composition.

Mathematics — Higher Arithmetic, including metric system, and higher Algebra, in connection with Mathematical Reviews.

German — Grammar; Prose Selections; Sight Translations.

French — Chardenal, Part I., concluded; Prose Selections; Van Daell's Introduction to French Authors; Sight Translations.

Declamations, Compositions, Vocal Music, and daily exercise in Gymnasium, throughout the year.

Reading — Milton's *Paradise Lost*, Books I. and II.; Pope's *Iliad*, Books I., XII.; Addison's *The Roger de Coverley Papers* in the *Spectator*; Goldsmith's *The Vicar of Wakefield*.

SECOND TERM.

Latin — Virgil's *Aeneid*; Cicero reviewed; Cæsar, Nepos, and Sallust at sight; Latin Composition.

Greek — Selections from Herodotus; Reading at sight; Greek Prose Composition; Reviews.

Mathematics — Higher Algebra and Plane Geometry, with original exercises, in connection with Mathematical Reviews.

German — Grammar; Prose Selections; Sight Translations.

French — Chardenal, Part II.; Van Daeil's Introduction to French Authors and other Prose Selections; Le Conscrit; Colomba; Daudet (Contes Choisis); Sight Translations.

Reading — Coleridge's The Ancient Mariner; Southey's Life of Nelson; Carlyle's Essay on Burns; Lowell's The Vision of Sir Launfal; Hawthorne's The House of the Seven Gables.

SIXTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Aeneid*; Ovid at sight; Daniell's Latin Composition.

Greek — Selections from Herodotus; Homer's Iliad; Reading at sight; Greek Prose Composition.

Physical Science — Physics, with laboratory work.

History — Pennell's Ancient Greece.

Declamations, Compositions, Vocal Music, and daily exercise in Gymnasium, throughout the year.

Reading — Shakespeare's Merchant of Venice; Burke's speech on Conciliation with America.

SECOND TERM.

Latin — Virgil's Eclogues; Cicero and Virgil at sight; Exercises in writing Latin at sight.

Greek — Herodotus and Homer at sight; Greek Prose Composition; Reviews.

Physical Science — Physics, with laboratory work.

History — Allen's Short History of the Roman People.

Reading — Scott's Marmion; Macaulay's Life of Samuel Johnson.

COURSE WITHOUT GREEK.

THIRD YEAR CLASS.

FIRST TERM.

Latin — Cæsar's Gallic War, Books, II., III.; Collar's Latin Composition; or

**German* — Collar's-Eysenbach's Grammar; Prose selections.

Mathematics — Elementary Algebra.

History — Montgomery's English History.

English Analysis, Rhetoric, Declamations, Compositions, Drawing, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Macaulay's Lays of Ancient Rome; Scott's Marmion; Irving's Alhambra; Tennyson's The Princess.

SECOND TERM.

Latin — Cæsar's Gallic War, Books I., IV.; Collar's Latin Composition; Exercises in reading and writing Latin at sight; or,

**German* — Collar's-Eysenbach's Grammar; Prose selections.

Mathematics — Elementary Algebra completed.

English Literature — Painter's.

Reading — Whittier's Snow Bound; Irving's Sketch Book; Scott's Lady of the Lake; Scott's Ivanhoe.

FOURTH YEAR CLASS.

FIRST TERM.

Latin — Cicero, Four Orations against Catiline; Collar's Latin Composition; Exercises in reading and writing Latin at sight.

Mathematics — Wentworth's Geometry, with original exercises.

Physiology — Brand's.

* German may be substituted for Latin by pupils who do not intend to pursue the full course in preparation for college or scientific school.

German — Collar's-Eysenbach's Grammar with Exercises.

Declamations, Compositions, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Pope's Iliad, Books I., VI., XXII., XXIV.; Carlyle's Essay on Scott; Byron's Fourth Canto of Childe Harold; Cooper's The Last of the Mohicans.

SECOND TERM.

Latin — Cicero, Orations for Manilian Law, Archias, and Marcellus; Cornelius Nepos; Latin at sight; Latin Composition.

Mathematics — Wentworth's Plane Geometry completed.

Civil Government — John Fiske's Civil Government in United States.

German — Collar's-Eysenbach's Grammar; Prose selections.

French — Chardenal, Part I.; Prose Selections.

Reading — Macaulay's Essay on Lord Clive; Scott's Old Mortality; Longfellow's Evangeline; Dryden's Palamon and Arcite.

FIFTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's Æneid, Books I., II.; Latin Composition; Exercises in reading and writing Latin at sight.

Mathematics — Higher Arithmetic, including metric system, and higher Algebra, in connection with Mathematical Reviews.

Physical Science — Shepard's Chemistry.

German — Grammar; Prose selections; Sight Translations.

French — Chardenal, Part I., concluded; Prose Selections; Van Daell's Introduction to French authors; Sight Translations. Declamations, Compositions, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Milton's Paradise Lost, Books I. and II.; Pope's Iliad, Books I. and XII.; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield.

NOTE — Advanced German may be substituted for Latin by pupils who do not intend to take the full course of study in preparation for college.

SECOND TERM.

Latin — Virgil's *Aeneid*; Cicero reviewed; Cæsar, Nepos, and Sallust at sight; Latin Composition.

Mathematics — Higher Algebra and Plane Geometry, in connection with Mathematical Reviews.

Physical Science — Shepard's Chemistry.

French — Chardenal, Part II.; Le Conscript; Colomba; Daudet (*Contes Choisiss*).

German — Grammar; Prose selections; Sight Translations.

Reading — Coleridge's *The Ancient Mariner*; Southey's *Life of Nelson*; Carlyle's *Essay on Burns*; Lowell's vision of Sir Launfal; Hawthorne's *The House of the Seven Gables*.

SIXTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Aeneid*; Ovid at sight; Daniell's Latin Composition.

Physical Science — Physics, with laboratory work, and Astronomy.

History — Pennell's *Ancient Greece*.

French — La Fontaine's Fables; Le Roman d'un Jeune Homme Pauvre; Daily translation of English into French.

German — Prose Selections; Daily translation of English into German.

Declamations, Compositions, Vocal Music, and daily exercise in Gymnasium, throughout the year.

Reading — Shakespeare's *Merchant of Venice*; Burke's Speech on Conciliation with America.

SECOND TERM.

Latin — Virgil's Eclogues; Cicero and Virgil at sight; Exercises in writing Latin at sight.

Physical Science — Physics, with laboratory work, and Astronomy.

History — Allen's *Short History of the Roman People*.

French — Le Bourgeois Gentilhomme; Confessions d'un Ouvrier; Daily translation of English into French.

German — Grammar; Prose Selections; Daily translation of English into German.

Reading — Scott's Marmion; Macaulay's Life of Samuel Johnson.

PREPARATORY SCIENTIFIC COURSE.

FOURTH YEAR CLASS.

FIRST TERM.

Latin — Cæsar's Gallic War, Books II., III.; Collar's Latin Composition.

Mathematics — Wentworth's Geometry, with original Exercises.

Physiology — Brand's.

French — Chardenal, Part I.; Prose selections.

German — Collar's-Eysenbach's Grammar, with Exercises.

Drawing — Free-hand and Geometrical.

Declamations, Compositions, Vocal Music, and daily exercise in the Gymnasium, throughout the year.

Reading — Pope's Iliad, Books I., VI., XXII., XXIV.; Carlyle's Essay on Scott; Byron's Fourth Canto of Childe Harold; Cooper's The Last of the Mohicans.

SECOND TERM.

Latin — Cæsar's Gallic War, Books I., IV.; Collar's Latin Composition; Exercises in reading and writing Latin at sight.

Mathematics — Wentworth's Plane Geometry completed.

Civil Government — John Fiske's Civil Government in the United States.

French — Chardenal, Part I., concluded; Prose selections; or

German — Collar's-Eysenbach's Grammar; Prose selections.

Reading — Macaulay's Essay on Lord Clive; Scott's Old Mortality; Longfellow's Evangeline; Dryden's Palamon and Arcite.

FIFTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Aeneid*, Books I., II.; Collar's Latin Composition; Exercises in reading and writing Latin at sight.

Mathematics — Trigonometry; Higher Arithmetic, including metric system, and higher Algebra, in connection with Mathematical Reviews.

Physical Science — Physics and Chemistry, with laboratory work.

French — Chardenal, Part II.; Prose selections; Van Daell's Introduction to French Authors ; or

German — Grammar; Prose selections; Sight Translations.

Drawing — Geometrical.

Declamations, Compositions, Vocal Music and daily exercise in the Gymnasium, throughout the year.

Reading — Shakespeare's Merchant of Venice; Burke's Speech on Conciliation with America.

SECOND TERM.

Latin — Virgil's *Aeneid*, Book III.; Cæsar, Nepos and Sallust at sight; Latin Composition.

Mathematics — Solid Geometry; Higher Algebra and Plane Geometry, in connection with Mathematical Reviews.

Physical Science — Physics and Chemistry, with laboratory work.

French — Chardenal, Part II., concluded; Le Conscrit; Colomba; Daudet (contes choisis); Prose composition; or

German — Grammar; Prose selections; Sight Translations.

Drawing — Geometrical.

Reading — Scott's Marmion; Macaulay's Life of Samuel Johnson.

For further information concerning the Academy, address J. W. Fairbanks, Principal of Smith Academy, or the Secretary of Washington University.

MARY INSTITUTE.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1895-96.

SCHOOL ORGANIZED, Thursday, September 26.

HOLIDAY, THANKSGIVING DAY, Thursday, November 28.

CHRISTMAS VACATION, December 21, 1895, to January 1, 1896,
inclusive.

SECOND TERM begins Monday, February 8.

UNIVERSITY HOLIDAY, Friday, May 8.

FIRST ENTRANCE EXAMINATION, Saturday, June 6.

GRADUATING EXERCISES, Friday, June 12.

VACATION, June 13 to September 23, inclusive.

1896-97.

ENTRANCE EXAMINATION, Tuesday and Wednesday, September
22 and 23.

SCHOOL ORGANIZED, Thursday, September 24.

HOLIDAY, THANKSGIVING DAY, Thursday, November 26.

CHRISTMAS VACATION, December 24 to January 1, inclusive.

SECOND TERM begins Monday, February 1.

OFFICERS
OF
INSTRUCTION AND GOVERNMENT.

RESIDENCE.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor of the University 3636 Pine st.
EDMUND H. SEARS, A. B., Principal 3529 Bell av.

ACADEMIC DEPARTMENT.

MISS LUCY E. SMITH, Assistant to
the Principal 3729 Delmar av.
MISS CARRIE VAN R. ASHCROFT,
English 26 N. Compton av.
MISS MARIA V. BEDINGER, A. B.,
Chemistry and Physics 3420 Washington av.
MISS ANNA L. BRANCH, A. B., En-
glish and Rhetoric 4314 Washington av.
MISS ELLEN C. CLARK, Geography
and Natural Science 2730 Pine st.
MISS SARAH E. COLE, Mathematics,
Astronomy and Mental Science 3853 Washington av.
MRS. SARAH G. HAYES, Mathemat-
ics and History 2818 Stoddard st.
MISS L. BEAUMONT IRWIN, French 3644 Olive st.
MISS LOUISE D. KUEFFNER, A. B.,
German and French 2800 Russell av.
MISS JENNIE R. LIPPMAN, A. M.,
Latin 5555 Cabanne pl.
MISS CAROLINE W. MUDGETT,
English Literature 3420 Washington av.
MADAME EMMA RUPPIN, French
and German 1000 N. Grand av.
MISS SARAH C. SOUTHER, Cooking 4048 Westminster pl.

RESIDENCE.

MISS VIRGINIA E. STEVENSON,
 History 8509 Morgan st.
 *MISS ANNIE RUSSELL WALL, History 2901 Washington av.
 MR. EDWARD P. PERRY, Elocution 2824 Morgan st.

PREPARATORY DEPARTMENT.

MRS. ANNIE L. McCARGO, Principal 5415 Bartmer av.
 MISS IDA J. ALVORD, English
 Branches West End Hotel.
 MISS SERAPH E. BROWN, English
 Branches 2744 Lucas av.
 MISS BARBARA COUSLAND, English
 Branches 4428 Delmar av.
 MISS NELLIE M. CURTIS, French
 and German 4088 Delmar av.

PRIMARY DEPARTMENT.

MISS MARGARET T. WALLACE,
 Principal 2930 Laclede av.
 MISS NELLIE M. CURTIS, French 4088 Delmar av.
 MISS SOPHIE DESLOGE, English
 Branches 5 Benton pl.

IN ALL DEPARTMENTS.

MISS CARRIE VAN R. ASHCROFT,
 Callisthenics 26 N. Compton av.
 MISS ELIZABETH BUTLER, Drawing 6706 Virginia av.
 MISS ELEANOR H. KIRK, Penmanship 2744 Lucas av.
 MISS SARAH M. MILLS, Drawing 2926 Eads av.
 MISS ESTHER DE B. PETTIBONE,
 Singing 3807 Delmar av.
 MR. AUGUST H. MUEGGE, Gymnastics 2712 Franklin av.

* Resigned December 21, 1895.

OUTLINE OF STUDIES IN PREPARATORY CLASSES.

	Prince's Arithmetic by Grades. (Review of the Four Rules; Common Fractions.) Stoddard's Mental Arithmetic.	Object Lessons in Geography and Natural Science. Map Drawing.	French or German. (Oral.)
4.	Reading: Andersen's Tales; Ruskin's King of the Golden River; Stories from American History; Falgrave's Children's Garland. The Word by Word Speller.	Object Lessons in Geography and Natural Science. Map Drawing.	French or German. (Oral.)
3.	Reading: Francillon's Gods and Heroes; Guliver's Travels; Selections from Poetry. Word by Word Speller.	Object Lessons in Geography and Natural Science. Map Drawing.	French or German. (Simple reading with beginning of Grammar.) Oral exercises.
2.	Reading. Morris's Historical Tales; Pilgrim's Progress; Chesterfield's Letters; Lang's Blue Poetry Book; Longfellow, Word by Word Speller. Grammar.	Object Lessons in Geography and Natural Science. Map Drawing.	French or German. (Simple reading with beginning of Grammar.) Oral exercises.
1.	Reading: The Iliad; the Odyssey; the Aeneid; Miles Standish; Evangelie; Lang's Blue Poetry Book. Word by Word Speller. Compositions. Grammar.	Prince's Arithmetic by Grades. (Percentage.) Stoddard's Mental Arithmetic.	Eggleston's History of the United States. French: Chardenal, through lesson 50. Rollin's French Reader. German: Simple text, and elementary grammar.
			Penmanship, Drawing, Vocal Music, each twice a week. Callisthenics, daily twenty minutes. No change of text-book applies to classes already supplied with former book.

OUTLINE OF STUDIES IN ACADEMIC CLASSES.

				<i>Modern Language.*</i>
Reading from various authors.	Arithmetic, Completed. Elementary Physics.	History of England.	General Review of Geography.	
V. Spelling, with definitions and synonymous words. Lockwood's Lessons in English. Composition.				
Readings from American authors.	Algebra.	History of England. History of France.	Physiology.	<i>Modern Latin.*</i>
IV. Definitions, synonyms and derivations. Composition.				
English Literature; Chaucer, Spenser, and Elizabethan Prose. Composition.	Algebra, with review exercises. (ONE TERM.)	History of the United States 1789-1895. Ancient History.	Botany. Geology.	<i>Modern Latin.* Greek.*</i>
II. Shakespeare and Milton. Rhetoric. Composition.	Plane Geometry with original exercises.		Physics.	<i>Modern Latin.* Greek.*</i>
I. English Literature; the 18th and 19th Century poets and prose writers. Composition.	Solid Geometry* Plane Trigonometry.*	Mythology. Medieval and Modern History.* Psychology.*	Domestic Science.* Astronomy.* Chemistry.*	<i>Modern Latin.* Greek.*</i>

Drawing and Vocal Music, each twice a week.
Penmanship in V. class, twice a week; in IV. class, once. Omitted in other classes except in special cases.

Callisthenics, daily fifteen minutes.

* All studies in *Italics* are elective.

SPECIAL REMARKS.

FOUNDATION AND EQUIPMENT.

The Mary Institute was founded under the provisions of the University Charter in 1859, a commodious building being erected on Lucas Place, at an expense of \$25,000.

In 1878, the school having quite outgrown the existing accommodations, the present structure was erected on the corner of Locust and Beaumont streets, at a cost of \$70,000. Its halls are broad, the stairways rise at an easy grade, the ceilings are high, and the rooms are well lighted and ventilated. The building contains a gymnasium, a calisthenic hall, a large apartment for drawing, and an ample number of recitation rooms to accommodate four hundred pupils.

The school is well supplied with apparatus, has a good reference library, and excellent sanitary appointments. A proper temperature is carefully maintained in all the rooms, a trained employe being specially charged with this task.

During recess a warm luncheon is served in the basement at moderate cost to such pupils as may desire it.

HEALTH AND PHYSICAL CULTURE.

Health is always considered more important than intellectual growth, and care is taken that pupils shall not be put to any undue strain, either mental or physical. Unnecessary stair-climbing is carefully avoided. Girls in

the primary department are obliged to mount the stairs only for morning devotions and calisthenics ; those in the preparatory, only for those exercises, and twice a week for singing and drawing. Academic pupils are kept on the second and third floors, and are not required to return to the first floor until dismissal. Parents who find that their daughters are overworked are earnestly requested to make it known to the principal.

Calisthenic Exercises occur daily in each class. The hours for the exercises are arranged near the middle of the program, thus affording relaxation between the morning and afternoon recitations. Besides the regular training in Calisthenics, special attention is given to the formation of good habits of movement and posture. Occasional lectures on physical culture are given in the upper classes. Two days in every week there is an optional course in the gymnasium after regular school hours.

GENERAL PLAN AND PURPOSE OF THE SCHOOL.

It is the aim of the institute both to fit girls for college and to give to such as do not wish for a collegiate training as complete and thorough an education as a school can provide. To this end instruction is given in all studies that best contribute to a girl's intellectual development. As far as is possible, an even balance is kept between such varying branches as the languages, science, literature, history, and mathematics ; but some election is allowed, in order that individual tastes may be encouraged, and greater interest awakened. Drawing and singing receive proper attention. There are no extra charges in any department.

ADMISSION.

The dates of entrance examinations in Spring and Autumn, for the following session, are given in the calendar, on p. 230. For younger pupils the examinations are oral, conducted privately and only to such extent as to satisfy the examiner of the applicant's proper place in the school. For admission to the higher class examinations are in writing. Pupils who are to enter in the Autumn may be examined in the preceding Spring on all, or any, of the necessary subjects, due credit being given for the work done at this examination.

In order to enter the Academic department a pupil must pass a fair preliminary examination in the following subjects: —

English Dictation (as a test of writing and spelling).

Arithmetic, including decimal and common fractions, denominate numbers, percentage, simple interest, and bank discount.

Geography, so much as is contained in an ordinary textbook.

English Grammar, through the parsing and analysis of simple sentences, and including participial and infinitive constructions.

United States History, so much as is contained in Eggleston's work.

TERMS.

Primary Department, per term of 18 weeks	\$35 00
Fourth Preparatory Class " "	40 00
Third " " "	45 00
Second " " "	50 00
First " " "	50 00
Fifth Academic " " "	55 00
Fourth " " "	60 00
Third " " "	70 00
Second " " "	80 00
First " " "	80 00

These charges are subject to change by vote of the Board of Directors.

No extras will be charged.

No pupil will be received for less than one term, and no abatement in tuition will be made for absence, whether such absence occur at the beginning, middle or end of the term.

Graduates of Mary Institute are admitted to any studies of the course upon payment of an entrance fee of fifteen dollars.

BOARD.

Upon application, effort will be made to find board in good families on reasonable terms. Any persons willing to take young ladies as boarders are requested to leave their address with some member of the Faculty.

For more particular information in respect to Mary Institute, reference may be made to the Principal or to any of the Faculty; or to the Secretary of Washington University.

THE MANUAL TRAINING SCHOOL.

MANAGING BOARD OF THE MANUAL TRAINING SCHOOL.

EDWIN HARRISON, Chairman . . . 3747 Westminster pl.
HENRY W. ELIOT 2635 Locust st.
SAMUEL CUPPLES 3673 Pine st.
WILLIAM L. HUSE 9 Westmoreland pl.
HENRY C. HAARSTICK Russell & Louisiana avs.
E. C. SIMMONS 21 Westmoreland pl.

C. M. WOODWARD,

Secretary.

Office at the University.

OFFICERS AND TEACHERS.

- W. S. CHAPLIN, LL.D., Chancellor . 3686 West Pine st.
C. M. WOODWARD, Ph. D., Director 3018 Hawthorne av.
W. F. HANCOCK, First Lieut. 5th U. S.
Artillery, Professor of Military Science
and Tactics The Franklin.
GEORGE W. KRALL, Assistant in Charge
of Third-Year Class, and Teacher of
Physics and Civics 3734B Olive st.
CHARLES H. SPOONER, A. B., Assistant
in Charge of Second-Year Class,
and Teacher of English and Mathe-
matics 26 Nicholson pl.
WM. R. VICKROY, Ph. B., Assistant
in Charge of First-Year Class, and
Teacher of Algebra and English . . 3542 Washington av.
CHARLES E. JONES, Instructor in
Forging and Auditor of Shop Accounts 2314 University st.
OSCAR W. RAEDER, Instructor in
Drawing 2227 Warren st.
GEORGE B. SWAFFORD, Instructor in
Wood-work 5910 Theodosia av.
*MARIAN E. COX, Ph. B., Instructor in
Chemistry and History
GEORGE ARROWSMITH, Instructor in
Wood-work and Molding 7024 Stanley av.
JANET C. GLOSS, Ph. M., Instructor
in Modern Languages 3864 Windsor pl.
*CLARA L. WOODWARD, Instructor in
Latin and English

* On leave of absence, at the University of Zürich, Switzerland.

CHARLES N. McFARLAND (Graduate,
Class 1892), Instructor of Machine-Tool
Metal Work. 5094 Ridge av.
WILLIAM H. ALLEN, A. B. (Graduate,
Class 1890), Instructor in Mathematics 815 Chouteau av.
HERMANN VON SCHRENK, A. M., In-
structor in Biology and Botany . . . 2110 Waverly pl.
LENA K. DIETRICH, Ph. B., Instructor
in Chemistry and History 3613 N. Broadway.
CLARA SESSINGHAUS, Ph.B., Instruc-
tor in Latin and English 2901 Rauschenbach av.
WILLIS HENRY GROCOTT, E. E.
(Graduate, Class of 1891), Assistant in
Drawing 1812 Coleman st.

SUMMARY OF ENROLLMENT, 1895-6.

Third-Year Class	. . . . .	49
Second-Year Class	. . . . .	88
First-Year Class	. . . . .	108
Total	. . . . .	245

ORGANIZATION.

The **MANUAL TRAINING SCHOOL** is a secondary or pre-
paratory school between the District or Grammar School
on the one hand, and the Engineering or Polytechnic
School on the other. It was organized to effect several
ends:

1. To furnish a broader and more appropriate founda-
tion for higher technical education.
2. To serve as a developing school where pupils could
discover their inborn capacities and aptitudes, whether in

the direction of literature, science, or the practical arts, while securing a liberal elementary training. Its usefulness is by no means limited to those who have a fondness for mechanics. Its training is of general educational value.

3. To furnish those who look forward to industrial life opportunity to become familiar with tools, materials, drafting, and the methods of construction, as well as with ordinary English branches.

The ordinance establishing the MANUAL TRAINING SCHOOL was adopted by the Board of Directors of the University, June 6, 1879.* The ordinance declared:—

“The students will divide their working hours, as nearly as possible, equally between mental and manual exercises. They shall be admitted, on examination, at not less than fourteen years of age, and the course shall continue three years.”

On September 6, 1880, the school opened with a single class of about 50 pupils. It is accordingly now in its SIXTEENTH YEAR.

During the summer of 1882, the large addition fronting on Washington avenue was built and furnished; this nearly doubled the capacity of the school. The rooms of the school are now much crowded.

* Shop-work had already been maintained for seven years among the classes of the Engineering School in buildings on the University grounds.

CONDITIONS OF ADMISSION.

Candidates for admission to the First-Year class must be at least fourteen years old, and each must present a certificate of good moral character signed by a former teacher.

They must also, unless presenting diplomas as explained below, pass a good examination on the following subjects:—

1. Arithmetic, including the fundamental rules; common and decimal fractions; the tables of weights, measures, and their use; percentage; interest; and analysis of miscellaneous problems. Candidates will be examined orally in mental arithmetic, including fractions, mixed numbers, and the higher multiplication table.
2. Common School Geography, including map-drawing from memory.
3. Spelling and Penmanship.
4. The writing of good descriptive and narrative English, with the correct use of capitals and punctuation.
5. Reading aloud with distinctness and correct expression.
6. The History of the United States.

Candidates for the Second-Year class must be at least fifteen years old. All that is specified above will be required of them, and, in addition, the studies of the First-Year class.

Similar advanced requirements apply to those desiring to enter the Third-Year class.

ALL PUPILS ARE ADVISED TO TAKE THE FULL COURSE.

All pupils are advised to enter the First-Year class rather than to aim to save a year's expense by waiting to enter the Second Year. The drawing and shopwork of the First Year cannot fully be made up, and the boy who skips the first year is more or less handicapped in all the subsequent work. *A pupil cannot as a rule recite with one grade and work in the shop with another.*

CERTIFICATES.

When candidates can present diplomas showing that they have completed a *thorough* course of study preparatory to a high school, or have done satisfactory work in a high school or school of equal grade, they may be admitted without examination.

Occasionally boys living at a distance from St. Louis are examined at their homes, on questions furnished by the Director.

Vacancies may be filled *at any time*, provided the applicants are prepared to enter existing classes.

EXAMINATIONS FOR ADMISSION.

An examination of candidates for admission will be held at the school on Thursday, June 18, beginning at nine o'clock. A *second* examination of applicants will be held on Friday, September 18.

The scope of the examinations for admission is best shown by old examination papers, which will be sent by mail on application.

THE COURSE OF INSTRUCTION

covers three years, and embraces five parallel lines — as follows: —

First — A course of pure Mathematics, including Mental Arithmetic, Algebra, Geometry, and Plane Trigonometry.

Second — A course in Science, including Biology, Botany, Chemistry, and Physics, all with laboratory practice.

Third — A course in Language and Literature, including English Grammar, Spelling, Rhetoric, Composition, Literature, History, and the elements of Civics and Political Economy. Latin, French and German are introduced as electives with a part of the English and Science or History.

Fourth — A course in Vertical Penmanship, Free-hand and Instrumental Drawing.

Fifth — A course of Tool Instruction, including Joinery, Wood-Carving, Wood-Turning, Molding, Pattern-Making, Soldering, Forging, and Bench and Machine Work in Metals.

MILITARY DRILL.

During the second and third years of the course, an average of two hours per week is devoted to systematic instruction and practice in military drill. The students of these years are organized as three companies, which are under the general direction of Lieut. W. F. Hancock, 5th U. S. Artillery, Commandant of the University Battalion. The arms and accoutrements are furnished

by the U. S. Government, but each student is required to provide his uniform — costing about thirteen dollars. The drill, whether in squad, company, or battalion, is not allowed to interfere with the usual program of study and work.

The arrangement of studies, tool-work, etc., by years is substantially as follows: —

[An "hour" generally means 50 minutes.]

FIRST YEAR.

ALGEBRA: *Three hours a week for the year.* Fundamental processes, factoring, fractions, equations of one and of two unknown quantities, and problems involving the same.

Text-book: Wells's Academic Algebra.

MENTAL ARITHMETIC: *One hour a week for the year.* Special attention to the use of fractions.

Text-books: Stoddard's Intellectual Arithmetic.

THEMES: *Five hours a week for one term.* A one-page Theme four times a week, and a long theme, with "brief" for the same, once a week on subjects chosen principally by the pupils from observation or from experience.

ENGLISH HISTORY: *Five hours a week for one term.* From the Beginnings through the Georges.

Text-book: "Leading Facts of English History."

LITERATURE: *One hour a week for the year.* A study of a few typical early English ballads, some of Wordsworth's lyrics, Shakespeare's Macbeth, and George Elliot's Silas Marner with a view to cultivate an ability to appreciate literature. (The boys taking Latin, French or German write and revise one theme a week in connection with this study.)

BIOLOGY: *Five hours a week for sixteen weeks.* The study of Typical Animal forms, their structure and habits. Reference Book: Burnet's "School Zoology." All instruction is given in the biological laboratory, and the pupils study

actual specimens of insects, fishes or animals, with the aid of glass and instruments. Drawings and written descriptions are required of all pupils.

KINDS AND USES OF WOOD: *Fifteen exercises.*

BOTANY: *Five hours a week for fifteen weeks.* A study of the growth and structure of plants.

Text-book: Bergen's "Elements of Botany."

FREE-HAND DRAWING: *Five hours a week for fourteen weeks.*

Projection of points, lines, and solids in space; lettering in many different alphabets; and elements of surface decoration.

INSTRUMENTAL DRAWING: *Five hours a week for twenty-four weeks.* One sheet of straight lines and circular arcs in an interlaced design; one of line shading; and two sheets of machinery details from free-hand sketches. The preparation of drawings for the exercises in woodwork.

JOINERY: *Ten hours a week for fourteen weeks.* The use of the different hand tools, and the making of simple joints.

WOOD CARVING: *Ten hours a week for five weeks.* The use of carving tools in ornamental line work and the shaping of simple designs in low relief.

WOOD-TURNING: *Ten hours a week for nineteen weeks.* Face-plate and center turning. Polishing and simple designing.

ELECTIVES.

Those who show a satisfactory proficiency in the use of the English language will be allowed to choose Latin or German or French in the place of Themes and History, provided there be a sufficient number to form a division in any one of those studies.

LATIN: *Five hours a week for the year.* Grammar and Reader. Latin Composition.

FRENCH: *Five times per week.* Grammar — Whitney's Practical French, La Langue Francaise (Bercy).

GERMAN: *Five times per week.* Grammar: Joynes-Meissner; Conversation — Fischer's Practical Lessons; Reading — Der Zerbrochens Krug (Zschokke).

SECOND YEAR.

ALGEBRA: *Five hours per week for twenty weeks.* The use of fractional exponents, reduction and combination of radicals, the solution of quadratic equations and equations containing radicals. The graphical interpretation of equations of first and second degrees is considered, and simultaneous values are illustrated. Text-book, Wells's Academic Algebra.

GEOMETRY: *Five hours per week for twenty weeks.* Five books of Wells's Geometry are thoroughly mastered. The ability to reason correctly is cultivated not only by standard demonstrations, but by numerous independent theorems and problems.

ENGLISH: *Five hours per week for twenty weeks.* Standard books in prose and poetry (Dickens, Goldsmith, Scott or Holmes) are carefully read and used as the basis of frequent themes.

HISTORY: *Four hours per week for twenty weeks.* English History for those who did not have it during the First Year; otherwise, Ancient History, especially Persian and Grecian.

COMPOSITION: *One hour a week for twenty weeks.* Themes written from field notes and observations among the industries of St. Louis.

CHEMISTRY: *Four hours per week for twenty or forty weeks* (as per electives). First term, sixty experiments are made and recorded by each student. Additional and more difficult experiments are made by the teacher and recorded by pupils. Second term, Remsen's Manual is completed by the class.

DRAWING. *Five hours per week for forty weeks.* Orthographic projections of intersecting solids and the development of their surfaces; Tinting with brush; Free-hand Detail Sketches, and Instrumental drawings from the sketches; Isometric Drawings and Graining; Geometrical Drawing; Ornamental Lettering and Border Design.

PATTERN-MAKING AND MOULDING: *Ten hours per week for ten weeks.* Patterns made, molded, and cast in plaster; cores

made and baked. The principles of soldering are acquired and sheet metal forms are produced.

FORGING: *Ten hours per week for thirty weeks.* All elementary processes of the forge are learned including welding iron, and forging and tempering a set of steel tools for each pupil. Projects of ornamental wrought iron or steel work.

MILITARY DRILL: *Two hours a week for thirty weeks.* The school of the soldier and the company.

ELECTIVES.

Latin may be continued through three Books of Cæsar; or German or French may be continued or taken up in the place of one term of History and one term of Chemistry by those who desire it and whose standing in English work will admit.

LATIN: *Five hours per week through the year.* Grammar and Composition continued and three Books of Cæsar.

FRENCH: *Five times per week.* Whitney's Practical French continued. Selected Readings, Sight-reading and Written Exercises.

GERMAN: *Five times per week.* Grammar continued; Conversation; Der Einsiedler (Wildermuth); Sight-Reading — Selected.

THIRD YEAR.

GEOMETRY: *Five hours per week for thirty weeks.* Wells's solid Geometry is completed.

TRIGONOMETRY: *Five hours per week for about ten weeks.* The functions of angles and their relations studied. The formulæ for plane triangles derived and applied. The nature and use of logarithms.

PHYSICS AND LABORATORY PRACTICE: *Four hours per week for forty weeks.* Elementary principles illustrated and fundamental laws tested and interpreted by the use of apparatus especially constructed for this laboratory. On the basis of this work, general theories are developed and complex operations are discussed.

CIVICS AND POLITICAL ECONOMY: *Five hours per week for forty weeks.* The functions of municipal, State and national governments; the duties of the citizen and the officer. The structure of society, the nature and relations of industrial, commercial and educational institutions. Frequent themes and reports.

LITERATURE: *One hour a week for forty weeks.* The reading of one of Shakespeare's plays, and the Study of Classic Myths.

DRAWING: *Five hours per week for forty weeks.* Higher geometrical drawing, conics, cycloids and helices; shades and shadows; house plans; brush shading and conventional drawing; orders of architectural ornament; sketching and project drawing.

TOOL-WORK: *Ten hours per week for forty weeks.* Metal work by machine and hand tools; the nature and uses of all the tools in the shop, in connection with exercises devised to bring out those uses. Each student takes part in the construction of a "project" or finished machine intended to embody a great range of tool practice and constructive skill.

MILITARY DRILL: *Two hours per week for thirty weeks.* The school of the soldier and the company.

ELECTIVES.

Five hours per week for forty weeks may be devoted to the continuation of the study of German or French, if the interest of the student requires it. This will take the place of Civics and Political Economy. Students are expected to master the details of grammar and be able to read easy prose at sight.

N. B. No pupil is permitted to omit studies or exercises which he may not like, nor can he take shopwork in advance of his academic grading.

THE DAILY PROGRAM.

The daily session consists of six periods of fifty minutes each, beginning at 9 A. M., and closing at 2:30 P. M., thirty minutes being allowed for lunch. Each pupil recites daily three lessons, which are for the most part learned at home. Each class consists of several "divisions" containing from twenty to twenty-five students each.

The order in which recitations and shop exercises follow each other is different with different divisions. Some begin work in the shop at nine o'clock, others at 10:40, and still others at 12:50. Military drill comes at the end of the day.

CHARACTER OF THE TOOL WORK.

All the shop-work is disciplinary; special trades are not taught, nor are articles manufactured for sale; as a rule the products of the shop have no value except as they illustrate typical forms and methods. Occasionally *projects*, or "final" pieces are of practical value are constructed which may belong either to the school or to the makers.

SHOPS, TOOLS, ETC.

The school has five large shops. Two are for wood work, having 150 sets of cutting tools, 50 benches, and 50 special speed lathes driven by the main engine.

One is a molding room with benches, sand, flasks, &c., for twenty-four workmen. Pupils make their own patterns and cores, and generally cast with plaster.

The forging shop has 25 forges, anvils and full sets of

tools. Each pupil learns all the fundamental processes of the forge while executing a carefully graded series of exercises in lead, iron and steel.

The machine shop has sixteen screw-cutting lathes, five speed lathes, two planers, two drills, a sharper, a dry and a wet emery grinder, a gas forge, a dozen vises and full sets of hand tools.

GENERAL INFORMATION.

Tuition Fees.—The school year consists of two terms of twenty weeks each. The fee for each term is payable in advance. The rates for the present are as follows:—

First-Year Class, \$37.50 per term or \$75 per year.
Second-Year Class, \$50 per term or \$100 per year.
Third-Year Class, \$60 per term or \$120 per year.

Incidental Expenses and Board.—Pupils furnish their own books, drawing instruments and paper, their own aprons and overalls, and certain small pocket tools. The school furnishes shop tools and materials. Losses and breakages are charged to pupils when they are the result of carelessness. Books and drawing materials do not cost on an average more than \$10 per year. Board and lodging for those whose homes are out of the city can be obtained in private families for from \$18 to \$25 per month.

There is no opportunity in the school for the pupil to pay his way by labor.

The school has no lodging house, but the Director is always ready to recommend good homes to non-resident boys.

SCHOLARSHIPS.

The founders of the school desire that its advantages may be within the reach of boys from every class in the community. A large number of free, or partially free, scholarships will therefore be kept filled. It is desirable that they should in general be given as rewards of merit to promising boys in straitened circumstances.

These scholarships are as a rule under the control of individual members of the Board of Managers. By special arrangement, single perpetual scholarships have been assigned to each of the following organizations:—

The Kirkwood Public Schools.

The St. Louis Brotherhood of Stationary Engineers.

The National Association of Stationary Engineers.

The St. Louis Brotherhood of Locomotive Engineers,
No. 48.

ALUMNI SCHOLARSHIPS.

An Alumni Scholarship has been established by the General Alumni Association.

Ten Alumni have also established a special scholarship which they have seen fit to name the "Woodward Scholarship."

A special illustrated catalogue giving in full all details of methods, the names of students, and the record of graduates, will be sent if asked for.

All inquiries and applications should be addressed to

C. M. WOODWARD, *Director,*
Manual Training School, St. Louis.

Or to GEO. M. BARTLETT,

Secretary of Washington University.

SUMMARY OF GRADUATES.

OF THE COLLEGE						168
OF THE SCHOOL OF ENGINEERING						159
OF THE LAW SCHOOL						526
OF THE MEDICAL COLLEGE						2,080
OF THE DENTAL COLLEGE						307
						<hr/>
						3,190
HONORARY GRADUATES						12
						<hr/>
						3,202

SUMMARY OF MEMBERS OF THE UNIVERSITY.

	~1894-95~		~1895-96~	
	<i>Stu.</i>	<i>Instrs.</i>	<i>Stu.</i>	<i>Instrs.</i>
COLLEGE AND SCHOOL OF ENGINEERING	168	30	155	30
LAW SCHOOL	181	15	165	15
MEDICAL COLLEGE	114	33	114	33
DENTAL COLLEGE	85	17	101	17
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL GRADUATE AND UNDERGRADUATE DEPARTMENTS	493	95	535	95

PREPARATORY SCHOOLS.

SMITH ACADEMY	331	28	310	28
MARY INSTITUTE	374	29	361	29
MANUAL TRAINING SCHOOL	268	15	245	15
	<hr/>	<hr/>	<hr/>	<hr/>
	968	67	916	67
TOTAL GRADUATE, UNDERGRADUATE, AND PREPARATORY DEPARTMENTS	1,461	162	1,451	162
SCHOOL OF FINE ARTS	291	13	372	13
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL CONNECTED WITH THE UNIVERSITY	1,752	175	1,823	175

OFFICERS OF THE ALUMNI ASSOCIATIONS.

UNDERGRADUATE DEPARTMENT.

President: MR. W. S. CURTIS.

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WASHINGTON UNIVERSITY.

1896-97.

A CATALOGUE
OF THE
OFFICERS AND STUDENTS
IN
WASHINGTON UNIVERSITY
WITH THE
COURSES OF STUDY
FOR THE
ACADEMIC YEAR 1896-97

ST. LOUIS:
NIXON-JONES PRINTING CO.
1897.

CALENDAR FOR 1897 and 6 MONTHS OF 1898.

1897.

1898.

Feb.	Jan.	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	March.	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	April.	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	June.	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		—	—	—	—	—	—	—		—	—	—	—	—	—	—		—	—	—	—	—	—	—		—	—	—	—	—	—	—
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		9	10	11	12	13	14	15		13	14	15	16	17	18	19		20	21	22	23	24	25	26		8	9	10	11	12	13	14
		16	17	18	19	20	21	22		27	28	29	30	31				27	28	29	30	31				15	16	17	18	19	20	21
		23	24	25	26	27	28	29																		22	23	24	25	26	27	28
		30	31																							29	30	31				
		6	7	8	9	10	11	12		3	4	5	6	7	8	9		10	11	12	13	14	15	16		5	6	7	8	9	10	11
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		20	21	22	23	24	25	26		24	25	26	27	28	29	30										19	20	21	22	23	24	25
		27	28																							26	27	28	29	30		

UNIVERSITY CALENDAR.

1896-97.

ENTRANCE EXAMINATION to the Manual Training School, Friday,
September 18, 1896.

MANUAL TRAINING SCHOOL opens Monday, September 21.

ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 22-23.

ENTRANCE EXAMINATION to the Law School, Wednesday, Sep-
tember 28.

ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 22-23.

ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 22-23.

ENTRANCE EXAMINATION to Smith Academy, Monday, Tuesday
and Wednesday, September 21-23.

ENTRANCE EXAMINATION to Mary Institute, Tuesday and
Wednesday, September 22-23.

SCHOOL OF FINE ARTS opens Monday, September 21.

UNDERGRADUATE DEPARTMENT opens Thursday, September 24.

LAW SCHOOL opens Thursday, September 24.

MEDICAL COLLEGE opens Thursday, September 24.

DENTAL COLLEGE opens Thursday, September 24.

SMITH ACADEMY opens Thursday, September 24.

MARY INSTITUTE opens Thursday, September 24.

HOLIDAY, Thanksgiving Day, Thursday, November 26.

VACATION, December 24, 1896, to January 3, 1897, inclusive.

FIRST TERM ends Saturday, January 30.

SECOND TERM begins Monday, February 1.

WASHINGTON UNIVERSITY.

HOLIDAY, Washington's Birthday, Monday, February 22.

MEDICAL COLLEGE closes Friday, April 23.

DENTAL COLLEGE closes Thursday, April 29.

COMMENCEMENT, Medical and Dental Colleges, Thursday, April 29.

UNIVERSITY HOLIDAY, Friday, May 14.

EXHIBITION OF WORK of School of Fine Arts, June 8-10.

ENTRANCE EXAMINATION to Smith Academy, Saturday, June 12.

ENTRANCE EXAMINATION to the Undergraduate Department, Monday and Tuesday, June 14-15.

EXHIBITION OF WORK of Manual Training School, Tuesday morning, June 15.

GRADUATING EXERCISES, Smith Academy, Tuesday evening, June 15.

GRADUATING EXERCISES, Mary Institute, Friday morning, June 11.

GRADUATING EXERCISES, Manual Training School, Wednesday evening, June 16.

ENTRANCE EXAMINATION to the Manual Training School, Thursday morning, June 17.

COMMENCEMENT, Law School and Undergraduate Department, Thursday evening, June 17.

VACATION, June 18 to September 23.

1897-98.

ENTRANCE EXAMINATION to the Manual Training School, Friday, September 17, 1897.

MANUAL TRAINING SCHOOL opens Monday, September 20.

ENTRANCE EXAMINATION to the Undergraduate Department, Tuesday and Wednesday, September 21-22.

ENTRANCE EXAMINATION to the Law School, Wednesday, September 22.

ENTRANCE EXAMINATION to the Medical College, Tuesday and Wednesday, September 21-22.

ENTRANCE EXAMINATION to the Dental College, Tuesday and Wednesday, September 21-22.

ENTRANCE EXAMINATION to Smith Academy, Monday, Tuesday,
and Wednesday, September 20-22.

ENTRANCE EXAMINATION to Mary Institute, Tuesday and Wed-
nesday, September 21-22.

SCHOOL OF FINE ARTS opens Monday, September 20.

UNDERGRADUATE DEPARTMENT opens Thursday, September 23.

LAW SCHOOL opens Thursday, September 23.

MEDICAL COLLEGE opens Thursday, September 23.

DENTAL COLLEGE opens Thursday, September 23.

SMITH ACADEMY opens Thursday, September 23.

MARY INSTITUTE opens Thursday, September 23.

HOLIDAY, Thanksgiving Day, Thursday, November 25.

VACATION, December 24, 1897, to January 2, 1898, inclusive.

FIRST TERM ends Saturday, January 29.

SECOND TERM begins Monday, January 31.

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EDGAR M. SENSENEY, M.D., Secretary
of the Medical Faculty and Professor
of Therapeutics and Materia Medica. 2829 Washington av.
ALBERT H. FULLER, M. D., D. D. S.,
Secretary of the Dental Faculty, and
Professor of Operative Dentistry . . . Columbia Building
EDMUND H. SEARS, A. B., Principal
of Mary Institute 3529 Bell av.
CHARLES R. SANGER, A. M., Ph. D.,
Eliot Professor of Chemistry . . . 3040 Washington av.
JAMES MAIN DIXON, M.A., F.R.S.E.,
Professor of the English Language
and Literature 5886 Von Versen av.
OTTO HELLER, Professor of the Ger-
man Language and Literature . . . 8660A Flad av.
JOHN HENRY KINEALY, D. E., Pro-
fessor of Mechanical Engineering . . 5030 Morgan st.
WILLIAM S. CURTIS, A. B., LL.B.,
Dean of the Law School 1421 Missouri av.
NORMAN B. CARSON, M. D., Profes-
sor of Clinical Surgery 4377 Westminster pl.
RODERICK E. ROMBAUER, Professor
of Equity and Real Property Law . . 3016 Geyer av.

ADDRESS.

- JOSEPH GRINDON, M. D., Professor**
of Dermatology 509 Ware av.
- JOHN B. SHAPLEIGH, M. D., Pro-**
fessor of Otology 3840 Delmar av.
- ORION W. BEDELL, M. D., D. M. D.,**
Professor of Mechanical Dentistry . 1909 Lafayette av.
- CHARLES P. CURD, A. M., Principal of**
Smith Academy 5641 Von Versen av.
- SIDNEY P. BUDGETT, M. D., Profes-**
sor of Physiology and Histology . . 8810 Washington boul.
- GUSTAV HAMBACH, M. D., Adjunct-**
Professor of Geology 1819 Lami st.
- HENRY AUGUST HUNICKE, E. M.,**
Adjunct-Professor of Applied Chem-
istry 2855 Albion pl.
- AUGUST H. MUEGGE, Instructor in**
Gymnastics 2712 Franklin av.
- ROBERT BRINGHURST, Instructor in**
the School of Fine Arts 1820 Lucas pl.
- HOLMES SMITH, Instructor in Draw-**
ing University Club.
- CHARLES NAGEL, LL.B., Lecturer on**
Corporations 2044 Lafayette av.
- EDWARD C. ELIOT, A. M., LL.B.,**
Lecturer on Sales and Bailments . . 5468 Maple av.
- PENDLETON TAYLOR BYRAN, LL.B.,**
Lecturer on the Law of Torts and
Negligence 2654 Locust st.
- EDWARD P. PERRY, Instructor in**
Elocution 4953 Fountain av.
- EDWARD M. CAMPBELL, Instructor**
in the School of Fine Arts Studio Building.
- * **ELISHA H. GREGORY, JR., M. D., In-**
structor in Practical Anatomy . . . 8525 Lucas av.

* Absent on leave.

ADDRESS.

- ELSWORTH S. SMITH, M. D., Instructor in Physical Diagnosis 3538 Pine st.**
- AMAND N. RAVOLD, M. D., Lecturer on Hygiene, Instructor in Bacteriology. 2506 Morgan st.**
- LEWIS L. McCABE, M. D., Instructor in Clinical Medicine 1919 N. Grand av.**
- JULES F. VALLÉ, M. D., Instructor in Obstetrics 3301 Washington av.**
- JOHN C. FALK, M. D., Instructor in Materia Medica 1112 Franklin av.**
- * **GREENFIELD SLUDER, M. D., Clinical Lecturer on Diseases of the Nose, Throat and Chest 2647 Washington av.**
- HENRI DUMAY, B. de l'È. S.S., Instructor in French 4064 Laclede av.**
- CHARLES F. VON SALTZA, Instructor in the School of Fine Arts 1224 Hamilton av.**
- CHARLES P. JOHNSON, A. M., LL.B., Lecturer on Criminal Law 4300 Washington av.**
- FREDERIC N. JUDSON, A. M., LL.B., Lecturer on Constitutional Law 3733 Washington boul.**
- ISAAC H. LIONBERGER, A. M., Lecturer on Statute of Limitations and Statutes of Fraud 3630 Delmar av.**
- LEE SALE, LL.B., Lecturer on Partnership 2734 Lucas av.**
- * **HENRY RAND HATFIELD, A. B., Instructor in Political Economy**
- ORVILLE LOGAN SIMMONS, M. S., Instructor in Cryptogamic Botany 719A N. Leffingwell av.**
- WILLIAM H. BOEHM, B. S., M. M. E., Instructor in Mechanical Engineering 906A N. Compton av.**

* Absent on leave.

ADDRESS.

- JOHN LANE VAN ORNUM, C. E., Instructor in Civil Engineering 619 N. Ewing av.**
- CARL KINSLEY, A. M., M. E., Instructor in Physics 3760 Olive st.**
- EDMUND H. WUERPEL, Instructor in the School of Fine Arts 3418 Lucas av.**
- EDWIN C. BURNETT, M. D., Lecturer on Syphilis { S. E. cor. Jefferson av. and Olive st.**
- VILRAY P. BLAIR, M. D., Demonstrator of Practical Anatomy 319 N. Grand av.**
- J. B. KIMBROUGH, D. M. D., Superintendent of Dental Infirmary 2610 Locust st**
- C. ORRICK BISHOP, Lecturer on Criminal Law Jennings, Mo.**
- FREDERICK A. WISLIZENUS, A. B., LL.B., Lecturer on the Law of Administration 1817 Longfellow boul.**
- PAUL F. COSTE, A. B., LL.B., Lecturer on Agency 44 Nicholson pl.**
- JACOB KLEIN, LL.B., Lecturer on Extraordinary Legal Remedies 1742 Missouri av.**
- JAMES O. BROADHEAD, LL.D., Lecturer on International Law 3333 Lafayette av.**
- CHARLES CLAFLIN ALLEN, LL.B., Lecturer on Medical Jurisprudence 3727 Westminster pl.**
- CHARLES P. DAVIS, Instructor in the School of Fine Arts 3418 Lucas av.**
- WILLIAM H. RUSH, S. B., A. M., Instructor in Botany 2106 Waverly pl.**
- JOHN G. HARPER, D. D. S., Demonstrator of Mechanical Dentistry 2815 Thomas st.**
- HORACE W. SOPER, M. D., Demonstrator of Anatomy 912 N. 19th st.**
- HERMAN L. NIETERT, M. D., Demonstrator of Anatomy 320 Cedar st.**

ADDRESS.

- WILLIAM JAMES LARK, D. M. D.,**
Demonstrator of Operative Dentistry 2709 Washington av.
- ALFRED D. FULLER, D. M. D , Dem-**
onstrator of Operative Dentistry . . . 4004 Delmar boul.
- ELLIS WARREN LAZELL, B. S.,**
Ph. D., Instructor in Chemistry . . . 1750 Preston pl.
- HENRY W. STUART, Ph. B., Instruct-**
or in Political Economy 2029 Park av.
- EDWARD S. ROBERT, LL.B., Lec-**
turer on Evidence 2922 Washington av.
- ALICE M. MORE, Instructor in the**
School of Fine Arts 5881 Plymouth av.
- W. H. PALMER, Instructor in the**
School of Fine Arts Edison Electric Co
- JUSTINA V. A. PHILLIPS, Instructor**
in the School of Fine Arts 1538 Mississippi av.
- WILLIAM PELL PULIS, Instructor in**
the School of Fine Arts 3125A Newstead av
- ARTHUR E. EWING, M. D., Lecturer**
on Diseases of the Eye 518 N. Garrison av.
- ALBERT E. TAUSSIG, M. D., Lec-**
turer on Clinical Medicine and
Urology 2647 Washington av.
- THEODORE KODIS, M. D., Lecturer**
and Demonstrator in Pathology, and
Curator of the Museum 3126 Morgan st.
- HENRY C. HARTMANN, M. D., Lec-**
turer on Orthopædic Surgery . . . 1801 St. Ange av.
- JOSEPH MASERANG, JR., Ph. G.,**
Instructor in Materia Medica and
Pharmacy 3838 Easton av.
- LEWIS O. ATHERTON, B. S., Assist-**
ant in Chemistry in the Medical
School 3088 Pine st.

GENERAL STATEMENT.

Washington University, founded in the city of St. Louis, under an Act of Incorporation by the State of Missouri, approved February 22, 1853, is intended to embrace the whole range of University studies except Theology, and to afford opportunity of complete preparation for every sphere of practical and scientific life.

By the eighth article of the Constitution, "no instruction, either sectarian or religious, or partisan in politics, shall be allowed in any department of the University: and no sectarian or partisan test shall be used in the election of professors, teachers, or other officers of the University for any purpose whatsoever. This article shall be understood as the fundamental condition on which all endowments, of whatsoever kind, are received." The Constitution also declares the article now quoted "not subject to alteration at any time;" but to guard against all encroachments in this important particular, the Directors have obtained from the General Assembly an amendment to the Charter, by which said article is incorporated in the same, and thereby placed beyond the power of any future Board of Directors. The Act of Amendment, approved February 12, 1857, declares:—

"**Sec. 2. No instruction, either sectarian in religion,**

or partisan in politics, shall be allowed in any department of said University; and no sectarian or party test shall be allowed in the election of professors, teachers, or other officers of said University; or in the admission of scholars thereto, or any purpose whatever.

" SEC. 3. It shall be the duty of the Board of Directors of the said University, upon being informed of any violation of the second section of this Act, forthwith to institute an inquiry into the charge or charges that may be preferred, in respect thereof, by any credible person, in writing, against any officer of said University, and if it shall appear that any officer of said University has violated the second section of this Act, the Board of Directors shall forthwith remove any such person so offending from any office which he may then fill in any Department of said University; and such person so removed shall be forever thereafter ineligible to any office in said University.

" SEC. 4. In case the Board of Directors, upon being notified in writing, by any credible person, of a violation of the second section of this Act, shall refuse or neglect to investigate the charges thereupon preferred against any officer of said University, it shall be competent for the St. Louis Circuit Court, or the St. Louis Court of Common Pleas, to compel the Board of Directors, by *mandamus*, to perform their duty in investigating such charge, and to show their performance of such duty to the satisfaction of the Court having cognizance of the matter, and all proceedings under this section shall be summary, and conducted to a conclusion with as little delay as possible; and the power hereby given to said

courts may be exercised by the judge of either of said tribunals in vacation."

On the 22d of April, 1857, the formal inauguration of Washington University took place with appropriate exercises in University Hall, and an oration delivered by Hon. Edward Everett, in the Mercantile Library Hall. An advanced scientific class was organized at that time. An Academy had then been in operation about three years. The College and Mary Institute were organized in 1859, and the first Senior Class was graduated from the College in June, 1862. The Law School was organized in 1867, the Polytechnic School, now known as the School of Engineering, in 1870, the School of Fine Arts and the Manual Training School in 1879, the School of Botany in 1885. The St. Louis Medical College, founded in 1842, was admitted as a department of the University in 1891, and the Missouri Dental College in 1892.

To show the principle on which endowments are invited, the fifth, sixth and seventh articles of the Constitution are here inserted.

"ARTICLE V.

"ENDOWMENT OF PROFESSORSHIPS.

"Any person may endow in whole or in part a specified professorship in the said University; and if, in the opinion of the Board of Directors, said endowment shall be sufficient for the support of said professorship, said professorship shall bear the name of its founder forever, unless at the time of the endowment he shall otherwise direct.

"ARTICLE VI.**"ENDOWMENT OF DEPARTMENTS.**

" Any person may found, by an adequate endowment, a specific department in said University; provided the plan of its organization and its purposes are approved by the Board of Directors, and if said endowment shall, in the opinion of said Board, be sufficient for the perpetual support of said department it shall bear the name of the founder thereof forever, unless he shall otherwise direct at the time of endowing the same.

"ARTICLE VII.**"SPECIFIC FUNDS.**

" All funds and property of whatever nature and description, contributed to the endowment or foundation of a professorship or department, shall forever be faithfully applied to the specific purpose for which contributed, and to no other object whatsoever, without the written consent of the donor or founder thereof, or his heirs and assigns, and also the written consent of two-thirds of the Directors first had and obtained; provided, however, that said funds and property in this article named shall never be diverted from the purposes of said University."

WASHINGTON UNIVERSITY

COMPREHENDS:

**I. UNDERGRADUATE DEPARTMENT;
INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.
Washington Avenue and Seventeenth Street.**

**II. HENRY SHAW SCHOOL OF BOTANY.
1724 Washington Avenue.**

**III. ST. LOUIS SCHOOL OF FINE ARTS.
Nineteenth and Locust Streets.**

**IV. ST. LOUIS LAW SCHOOL.
1417 Locust Street.**

**V. ST. LOUIS MEDICAL COLLEGE.
1806 Locust Street.**

**VI. MISSOURI DENTAL COLLEGE.
1814 Locust Street.**

The following schools have also been organized under the charter of the University:—

I. SMITH ACADEMY.

II. MARY INSTITUTE.

III. MANUAL TRAINING SCHOOL.

For particulars in regard to these schools see special catalogues, to be had on application to Geo. M. Bartlett, Secretary, 1704 Washington avenue.

UNDERGRADUATE DEPARTMENT.

THE COLLEGE.

THE SCHOOL OF ENGINEERING.

UNDERGRADUATE DEPARTMENT,

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

FACULTY.

WINFIELD S. CHAPLIN,
Chancellor.

SYLVESTER WATERHOUSE,
Professor of Greek.

CALVIN M. WOODWARD,
Professor of Mathematics and Applied Mechanics.

GEORGE E. JACKSON,
Professor of Latin.

MARSHALL S. SNOW,
Professor of History, and Dean of the College.

FRANCIS E. NIPHER,
Professor of Physics.

EDMUND A. ENGLER,
*Professor of Mathematics and Descriptive Geometry, and Dean of the
School of Engineering.*

HENRY S. PRITCHETT,
Professor of Mathematics and Astronomy.

JOHN B. JOHNSON,
Professor of Civil Engineering.

WILLIAM TRELEASE,
Professor of Botany.

CHARLES R. SANGER,
Professor of Chemistry.

JAMES MAIN DIXON,
Professor of English.

OTTO HELLER,
Professor of German.

JOHN H. KINEALY,
Professor of Mechanical Engineering.

GUSTAV HAMBACH,
Adjunct-Professor of Geology.

HENRY AUGUST HUNICKE,
Adjunct-Professor of Applied Chemistry.

HOLMES SMITH,
Instructor in Drawing.

HENRY DUMAY,
Instructor in French.

INSTRUCTORS.

AUGUST H. MUEGGE,
Instructor in Gymnastics.

CHARLES E. JONES,
Instructor in Forging.

GEORGE B. SWAFFORD,
Instructor in Wood-work.

EDWARD P. PERRY,
Instructor in Elocution.

HENRY RAND HATFIELD,
Instructor in Political Economy.

CHARLES N. McFARLAND,
Instructor in Metal-work..

ORVILLE LOGAN SIMMONS,
Instructor in Botany.

WILLIAM H. RUSH,
Instructor in Botany.

ELLIS WARREN LAZELL,
Instructor in Chemistry.

HENRY W. STUART,
Instructor in Political Economy.

STUDENTS.

SENIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Bernays, Walter Ernst . . .	Chem. . .	8628 Laclede av.
Branch, Henry	Mech. Eng. .	4314 Washington av.
Bryan, Wm. Morgan Case .	Arts . . .	2988 Dickson st.
Chaplin, Susan Elizabeth .	Arts . . .	8686 W. Pine boul.
Fisher, Guy Kellogg . . .	Elec. Eng. .	1828 Lafayette av.
Fisher, Lee David . . .	Mech. Eng. .	Clifton Terrace, Ill.
Gilbert, Helen May . . .	Arts . . .	1410 S. Ewing av.
Hill, Betty	Arts . . .	1743 Preston pl.
Hough, Bodley	Civ. Eng. .	Kirkwood, Mo.
Hunicke, Wm. August . .	Civ. Eng. .	2987 Henrietta st.
Jacobs, Arthur Irwin . .	Elec. Eng. .	2824 Clark av.
Jones, Mary Persis . . .	Arts . . .	3620 Pine st.
Kirchner, Walter Charles George	Arts . . .	4476 Easton av.
Koch, Waldemar Hermanu August	Chem. . .	6847 N. Manchester rd.
Kramer, Arthur	Civ. Eng. .	2131 Walnut st.
Robbins, Leroy Kingsland	Mech. Eng. .	10 S. Newstead av.
Roever, William Henry .	Mech. Eng. .	3628 St. Louis av.
Roever, Sophia Eugenia .	Arts . . .	3628 St. Louis av.
Rosenwald, Lucian . . .	Civ. Eng. .	Las Vegas, N. M.
Trepp, Samuel	Elec. Eng. .	522 Ware av.
Tyrrell, Warren Ayres .	Civ. Eng. .	1643 S. Jefferson av.
Van Duzer, Sue	Arts . . .	5639 Clemens av.
		Total, 22.

JUNIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Burnham, Grace	Arts	2942 Laclede av.
Clark, William Glasgow . .	Civ. Eng. . .	4201 Page av.
Conzelman, John Edward . .	Civ. Eng. . .	2901 Morgan st.
Evans, Charles Orrick, Jr. .	Arts	Kirkwood, Mo.
Frankenthal, Maurice Al-		
bert	Arts	1827 Kenuett pl.
Haeberle, Armin	Arts	Eden College.
Knapp, Charles Speck . .	Mech. Eng. . .	1206 Morrison av.
Langsdorf, Alexander Suss .	Mech. Eng. . .	3133 Laclede av.
Rapp, Frank Arthur . . .	Civ. Eng. . .	1315 Taylor av.
Ruth, Anna Harding	Arts	2626 Thomas st.
Schlossstein, Louis Adolph .	Mech. Eng. . .	1210 Sidney st.
Sessinghaus, Bertha Char-		
lotte	Arts	2901 Rauschenbach av.
Willits, Edward Everett . .	Arts	4648 Kennerly av.
		Total, 13.

SOPHOMORE CLASS.

Adams, Grace	1010 Newstead av.
Adkins, James, Jr.	1414 S. Ewing av.
Bates, Henry Otis	Webster Groves, Mo.
Berger, Albert Alexander . .	3128 Pine st.
Bonnet, Frederick, Jr. . . .	2719 Russell av.
Bouton, Walter Scott	2909 Park av.
Bryan, Archibald Moore . . .	Washington, Mo.
Cave, Rhodes Estil	3921 Delmar boul.
Cole, John Gully	4023 Westminster pl.
Evers, Helen Margaret	1861 N. Market st.
Hendrich, Charles August . .	2805 Lafayette av.
Kendrick, Bessie Harriet . .	Webster Groves, Mo.
Kimball, Arthur Campbell . .	Kirkwood, Mo.
Kirchner, Elida Caroline . .	4234A Easton av.
Koken, Ernest Charles Frank .	3522 Hawthorne boul.
Pettus, Charles Parsons	2834 Chestnut st.

NAMES.	RESIDENCE.
Pollock, Robert Bowers	8967 Pine st.
Robinson, Arthur Dwight	4174 West Belle pl.
Shields, Walter	3860 Delmar boul.
Simpson, William Simeon, Jr.	2110 Lafayette av.
Stoffregen, Charles Henry	3514 Hawthorne boul.
Vetsburg, Karl Max	4154 McPherson av.
Wittler, William Stephen	1134 Rutger st.
Woermann, Frederick Christian	2800 Cass av.
	Total, 24.

FRESHMAN CLASS.

Berry, Horace Ridgway	8121 Washington av.
Bowen, Sherman Worcester, Jr.	5941 Cote Brilliante av.
Burgess, Samuel Allen	2938 Harper st.
Chandler, Albert Barbour	Kirkwood, Mo.
Creveling, Dewitt	Clayton, Mo.
Dicke, Edward Christian	1911 Hebert st.
Eilers, Le Roy Matthew	1616 King's Highway.
Evans, Dwight Durkee	2648 Locust st.
Farnham, Anna May	2943 Thomas st.
Fisse, John Henry	2635 Russell av.
Forder, Carver Walker	Station "B," St. Louis.
Gamble, Walter Guy	5961 Plymouth av.
Goebel, Julius Christian	1215 S. 14th st.
Grimm, Henry England	3213 Eads av.
Gronemeyer, Lydia Ottlie	Jennings, Mo.
Henby, William Hastings	2631 Russell av.
Hill, Tilly	1743 Preston pl.
Hofmann, Ottocar, Jr.	Argentine, Kan.
Horwitz, Alexander Earle	1323 Carr st.
Kammerer, Alfred Louis	2724 Dayton st.
Leavitt, Sherman	5515 Cabanné pl.
Lewis, John James	Webster Groves, Mo.
McClure, Ralph Stanton	6814 Smiley av.
Pettus, Eugene	2834 Chestnut st.
Phillips, Silas Bent	4442 Morgan st.

WASHINGTON UNIVERSITY.

NAMES.	RESIDENCE.
Pierson, Ruth Howard	1112 N. Garrison av.
Ritschy, Lewis John	2744 Russell av.
Schmedtje, Adolph Henry	2837 S. 18th st.
Snyder, Allen Lane	4054 McPherson av.
Steinbreder, Alvina Louisa	4758 Hammett pl.
Stokes, Victor Hugo	East St. Louis, Ill.
Toensfeldt, Hans Carl	912 S. 9th st.
True, Clinton Utterbach	5887 Von Versen av.
Waterworth, Edward Brooks	3800 Washington av.
Woelk, William John	Belleville, Ill.
	Total, 35.

SPECIAL STUDENTS.

Allen, George Walbridge	3189 Lucas av.
Allison, Francis	3110 Eads av.
Avis, Mabel Dean	4115 Delmar av.
Barada, Andrew, S.	1089 N. Grand av.
Brokaw, Anna Clotilde	3200 Lucas av.
Bruère, Robert Walter, A. B., 1896	St. Charles, Mo.
Bryan, Genevieve	3661 Blaine av.
Caldwell, Grace	5922 Horton pl.
Caldwell, John William	4119 McPherson av.
Cochran, Ella A.	7 Westmoreland pl.
Corbitt, Katherine	3662 Delmar av.
Darrow, Arthur Charles	O'Fallon, Ill.
Eiseman, Florence M.	3237 Pine st.
Ellis, Belle	4478 W. Belle pl.
Ericson, Helen M.	2727 Russell av.
Evans, Imogene	4038 Belle av.
Fairbrother, Raymond Carpenter	East St. Louis, Ill.
Finney, Mary Shackelford	4028 Morgan st.
Forbes, Clara Belle	3625 Delmar av.
Gast, Serena Mayer	63 Vandeventer pl.
Gibson, Helen Frances	2217 Wash st.
Gibson, Louise Katherine	3439 Chestnut st.
Goodfellow, Henry Burd	3817 Delmar av.

NAMES.	RESIDENCE.
Gottschalk, Florence Susan	6700 Marmaduke av.
Grayson, William, Jr.	1115 S. Grand av.
Greensfelder, Albert Preston	{ Central, St. Louis Co., Mo.
Hammond, Edith	4168 Westminster pl.
Haskins, Sallie Corbitt	3662 Delmar av.
Hazard, Grace	Kirkwood, Mo.
Hodgen, Ella Hart	1023 Thornby pl.
Holden, Edward Chauvenet	2703 Lucas av.
Hospes, Cecilia Lizzette, A. B., 1896	3001 Lafayette av.
Hospes, Theresa Bertha	Old Orchard, Mo.
Jio, Marmoru	Tokio, Japan.
Johnson, Nellie B.	3863 Washington av.
Lachmund, Alice	2727 Russell av.
Levy, Hilda	4452 Washington av.
McGann, Peter Joseph	613 S. Broadway.
Joseph Francis McMullen	Mo. Botanical Garden
Methudy, Adolph Edward	1800 Waverly pl.
Miller, Grace Montgomery	4115 Washington av.
Moore, Charles Whippo	61 Vandeventer pl.
Nicholson, Clara Belle	516 N. Garrison av.
Pirscher, Charles Frederick, A. B., 1896	1115 Victor st.
Russell, Jennie Belle	1746 Missouri av.
Schulenburg, Ellen	2822 Eads av.
Schultz, Mary	3110 Eads av.
Setz, Carl Frederick	Bonne Terre, Mo.
Siddy, Katherine	Webster Groves, Mo
Steele, Helen Pomeroy	2825 Washington av.
Stix, Cora	3135 Washington av.
Strache, Albert Henry	3305 Russell av.
Stuart, James Lyall	4223 W. Belle pl.
Tredway, Emily Greeley	1535 Locust st.
Tyler, Eleanor Murdock	3215 Lucas av.
Weinrich, Ella Amalie	30 Benton pl.
Whitelaw, Margaret Gray	3234 Pine st.

Total, 57.

SUMMARY.

Seniors	22
Juniors	13
Sophomores	24
Freshmen	35
Special students	57
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Total, 151														

**COURSES OF INSTRUCTION PROVIDED IN THE
UNDERGRADUATE DEPARTMENT.****GREEK.**

Professor Waterhouse. Three times a week.

1. Herodotus (selections).
2. Homer (selections). Isocrates; The Panegyric.
3. Demosthenes on the Crown; Thucydides (selections).
4. Selections from the Tragedians.
5. Selections from the Tragedians.
6. Plato (selections).

LATIN.

Professor Jackson. Three times a week.

1. Livy; Second Punic War. Books XXI-XXX.
2. Horace; Odes and Epodes; Satires and Epistles (selections)
3. Cicero; Philosophical Works (selections); Letters.
4. Plautus, Terence, Juvenal (selections).
5. Tacitus; Annals and Histories (selections).
6. Suetonius; Seneca, Moral Essays; Quintilian.
7. Seneca, Tragedies; Martial, Epigrams; Lucretius.
8. Pliny, Letters; Catullus, Tibullus, Propertius (selections).

ENGLISH.

Professor Dixon and Mr. Perry.

1. The elementary laws of all writing. Canons of correct usage in language. The function of grammars and dictionaries. Analysis of sentences. English idioms—auxiliary verbs, conditional sentences, relative pronouns,

- etc. Literary forms — the paragraph, article, essay. The rules of letter-writing. *Two hours a week.*
- Exercises in composition and analysis.
- Elocution. *One hour a week.*
2. Modern English prose, especially in the departments of narrative and exposition. Framing of synopses and abstracts. Studies in Macaulay and Emerson. *Two hours a week.*
- Elocution. *One hour a week.*
- 3 English prose from Sidney and Dryden to Arnold, Newman, and Lowell. Lectures on the development of English prose. *Two hours a week.*
- Fortnightly compositions, with criticism, on modern every-day topics. *One hour a week.*
4. Modern poetry: Wordsworth, Keats, Tennyson, Browning. Sonnet literature. *Two hours a week.*
- The laws of versification, with exercises. *One hour a week.*
- 5 Oratory as a branch of literature. The composition of an oration. *Two hours a week.*
- Rise and growth of the English novel. Exercises in story-writing. History of journalism and the essay. *One hour a week.*
6. Shakespeare; his life and literary career; the quartos and folios. English and German editors and commentators; textual criticism. Critical reading of one play (1897, *Lear*). Exercises in analyzing the structure of the play, and the development and interaction of the characters. *Three hours a week.*
7. Spenser, Milton (1897, *Samson Agonistes*), Pope. *Two hours a week.*
- Philology. *One hour a week.*
8. Early English and dialect literature. Ballad literature. Chaucer and Burns. *Three hours a week.*
- 9-10. Elocution; open to those who have taken the Elocution in courses 1 and 2. *Three hours a week.*

GERMAN.

Professor Heller. Three times a week.

- 1-2. Elementary Courses. Accidence; Translation from German into English and from English into German; German Conversation. Reading: *Zschokke*, der zerbrochene Krug; *Fischer*, die wandelnde Glocke, *Leander*, Träumereien, *Storm*, Immensee.

Prescribed for Freshmen who did not present German for admission.

- 3-4. German Syntax; Prose Composition. *Joynes-Meissner*, H. v. *Jagemann*, Syntax and Composition; German Conversation; Reading: *Stifter*, das Heidedorf; *Freytag*, der Kittmeister von Alt-Rosen; *Meyer*, Gustav Adolfs Page, and a short comedy.

- 5-6. Composition continued; History of German Literature: *Evans*, Abriss der d. Litteraturgesch. *Petermann*, Lesebuch. Reading: *Lessing*, Minna von Barnhelm; *Goethe*, Hermann u. Dorothea, Iphigenie auf Tauris; *Schiller*, das Lied von der Glocke, Wallenstein; Home-Reading.

- 7-8. Literature of the nineteenth century. Reading: Works of *Heine*, *Auerbach*, *Geibel*, *Scheffel*, *Freytag*, *Schücking*. *Spielhagan*, *Heyse*, *Wildenbruch*, *Baumbach*, and *Seidel*; Essays.

- 9-10. Introduction to the history of the German Language (Weise); Middle-High-German Grammar (Paul); Reading: Nibelungenlied; Hartmann von Aue; Walther von der Vogelweide; Ulrich von Liechtenstein (in the original).

Courses 5-10 are conducted in German, 10 is offered primarily to students of German parentage and is the basis of a four-years' course.

FRENCH.

Mr. Dumay. Three times a week.

1. Elementary Course. Pronunciation; Easy Conversation; Elementary Grammar.

2. More advanced conversation; Study of Idioms; Translation from French into English; Grammar.
Courses 1 and 2 are prescribed for Freshmen who did not present French for admission.
- 3-4. Grammatical Study; Translation and Letter-Writing; Conversation.
- 5-6. French Literature of the XVI and XVII centuries, with illustrative readings. Principles of French Composition.
7. Modern Literature from the beginning of the XVIII century to 1815, with collateral reading.
8. Contemporary Literature, 1815-1892, with collateral reading.

PHILOSOPHY.

Professor Dixon. Three times a week.

Logic. Province of Logic. Terms. Extension and intension; Logic and language. Propositions and their conversion; the predicables; division and definition. The Syllogism; regular, irregular and compound conditional arguments. Fallacies and the best methods of treating them. Argument in orations and general literature.

POLITICAL ECONOMY.

**Mr. Hatfield.* Three times a week.

1. Principles of Political Economy. A course for beginners, using Mill's *Principles of Political Economy* as the text-book.
2. Advanced Political Economy. Marshall's *Principles of Economics*.
3. Descriptive Political Economy. A brief study of some of the practical Economic problems including the Tariff, Money, Banking and Railroads.

Open to those who have completed Course 1.

4. Financial History of the United States.

Open to those who have completed Courses 1 and 2.

* During 1896-97 these Courses are conducted by Mr. Stuart.

5. Tariff History of the United States.

Open to those who have completed Courses 1 and 2.

HISTORY.

Professor Snow. Three times a week.

1. History of England from Henry VII. to the end of the Stuart Period. Lectures and recitations.
2. History of England; Modern Period.
3. History of France under the Bourbon Kings to the Revolution.
4. The Revolution and the Empire.
5. Mediaeval Germany; The Holy Roman Empire to the Peace of Westphalia.
6. Eastern Europe since the Fall of the Western Empire.
7. Constitutional History; Constitution of the United States; Comparison of American and European Governments.
8. Elements of International Law, with Study of Treaties.
Half course.
9. General European History; Review and Philosophical Discussion.
Half course.
10. History of Art. *Half Course:* once a week throughout the year. *Mr. Holmes Smith.*

MATHEMATICS.

Three times a week.

1. Plane and Spherical Trigonometry. *Professor Pritchett.*
2. Higher Algebra. *Professor Pritchett.*
3. Analytic Geometry. *Professor Engler.*
- *4. Differential Calculus. *Professor Engler.*
- *5. Integral Calculus. *Professor Woodward.*
6. Method of Least Squares. *Professor Pritchett.*
7. Differential Equations. *Professor Woodward.*
8. Quaternions. *Professor Woodward.*

* Mathematics 4 and 5, four times a week.

9. Higher Plane Curves. *Professor Engler.*
10. Theory of Functions. *Professor Engler.*

MECHANICS.

Professor Woodward.

1. Graphical Statics. Stress Diagrams for Frames, Trusses and Bridges analyzed and drawn to scale. *Two lectures a week.*
2. General Principles of Statics and Dynamics with illustrative examples. *Four hours a week.*
3. Rotation of Rigid Bodies. Character and distribution of Stress. Strength and Stiffness of Girders and Shafts. *Four hours a week.*
4. Kinematics, Mechanism, including the general theory of transmission of energy by Gearing, Liquids, Belts, etc., with and without friction. *Two hours a week.*
5. Deflection of beams and girders and the Torsion of Shafts. *Two hours a week.*
6. Elementary Principles of Thermodynamics. Efficiency of compressed air. General Equations applied to problems of evaporation, condensation and refrigeration. *Two hours a week.*

PHYSICS.

1. Elementary Mechanics, including the Mechanics of Fluids. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
2. Optics. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
3. Heat. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
4. Electricity and Magnetism. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
5. Laboratory instruction in Electrical Measurements, including measurement of resistances, E. M. F. of batteries, the

calibration of ampèremeters and voltmeters, electrolytic measurements, magnetic determinations, heating effect of currents, electrical determinations of Joule's equivalent. *Six hours a week.* Professor Nipher.

6. Introduction to the mathematical theory of Electricity and Magnetism, including the theory of Potential; capacity of bodies; energy of electrical systems; electrometers and electrostatic voltmeters, theory of magnetic measurements, magnetic fields due to electric currents, electrical induction, theory of dynamos and electric motors, alternating currents, tri-phased systems. *Three hours a week.* Professor Nipher.
7. Dynamo-electric Machinery, including a discussion of the theory of series, shunt and compound dynamos and motors, conditions of efficiency of dynamos and motors, conditions of economic operations, transformers and transformer systems, electric lighting stations, electric railways, power stations, and secondary batteries. *Three lectures a week.* Mr. Kinsley.
8. Laboratory work in testing electrical machinery. *Three hours a week.* Mr. Kinsley.
9. Designing of electrical machinery. *Six hours a week.* Mr. Kinsley.
10. Electrical Transmission of Power and Light, and the study of the designing of machinery for specific output and economy. *Two hours a week of lectures and two hours of laboratory work.* Mr. Kinsley.
- 11-12. Designing of Electrical Machinery. *Six hours a week.* Mr. Kinsley.
- 13-14. Laboratory Work. *Six hours a week.* Mr. Kinsley.
15. Mathematical theory of Electricity and Magnetism. *Three hours a week.* Professor Nipher.
16. The same continued. *Three hours a week.* Professor Nipher.

CHEMISTRY.

- 1-2. General Descriptive Chemistry. Lectures, laboratory work and recitations. General theories of chemistry. Description of the elements and their compounds. *Six hours a week.* *Professor Sanger and Dr. Lasell.*

Courses 1-2 must precede all others.

- 3-4. Qualitative Analysis, mainly laboratory work. *Six hours a week.* *Professor Sanger and Dr. Lasell.*

- 5-6. Quantitative Analysis, Elementary, mainly laboratory work. Fundamental principles of gravimetric and volumetric analysis. *Six hours a week.*

Professor Sanger and Dr. Lasell.

Courses 5-6 may be taken with courses 3-4 at the pleasure of the instructor.

- 7-8. Quantitative Analysis, Advanced. Laboratory work. Analysis of commercial and industrial materials and products. Sanitary examination of foods, water, etc. Gas Analysis. A knowledge of German is desirable. *Six hours a week.*

Professor Sanger and Adjunct-Professor Hunicke.

Courses 7-8 must be preceded by courses 5-6.

- 9-10. Carbon Compounds. Lectures on the syntheses of the carbon compounds. Preparation of compounds illustrative of general synthetic methods. A knowledge of German is essential. *Three to six hours a week.*

Professor Sanger.

Courses 9-10 must be preceded by courses 3-4 and 5-6.

11. Advanced Inorganic Chemistry. Lectures on the history of chemistry and discussion of chemical theory. *Three hours a week.* *Professor Sanger.*

Course 11 must be preceded by courses 3-4, 5-6, and 9-10.

12. Crystallography and Descriptive Mineralogy. Lectures and conferences. *Two hours a week.*

Adjunct-Professor Hunicke.

13. Determinative Mineralogy. Lectures and laboratory work. Determination of minerals by means of the blow-pipe. *Three hours a week.*

Adjunct-Professor Hunicke.

Course 13 must be preceded by course 12.

14. Physical Crystallography. Lectures and conferences. Determination of crystal forms and optical constants. *Three hours a week.* *Adjunct-Professor Hunicke.*

15. Assaying. Fire assays of gold, silver and lead ores and smelting products. Laboratory work. *Three hours a week.* *Adjunct-Professor Hunicke.*

Course 15 must be preceded by courses 3-4, 5-6, 12 and 18.

16. General Metallurgy. Lectures. Outline of metallurgical processes for the production of the most common metals. *Three hours a week.*

Adjunct-Professor Hunicke.

17. Special metallurgy. Lectures and conferences. Special processes used in the production of iron, steel, copper, lead, zinc, silver, gold, etc. *Three hours a week.*

Adjunct-Professor Hunicke.

Courses 16 and 17 must be preceded by courses 3-4, 5-6, 12 and 18.

18. Chemical Technology. Lectures and conferences. The discussion of processes of manufacture of acids, alkalies, and salts; cements, ceramics, and glass. *Three hours a week.* *Adjunct-Professor Hunicke.*

Courses 18-19 must be preceded by courses 3-4, 5-6, 7-8, and 9-10.

19. Chemical Technology. The industries of the fats and oils; destructive distillation of wood and coal; starch, sugar, beer and spirits; fertilizers; fibre industries; working up of by-products. *Three hours a week.*

Adjunct-Professor Hunicke.

- 20-21. Research in Theoretical Chemistry. Laboratory work and reference to chemical journals. Investigation of

some subject in inorganic or organic chemistry. Preparation of thesis or monograph for publication.

Professor Sanger.

22-28. Research in Applied Chemistry. Laboratory work and reference to chemical journals. Investigation of some subject of direct practical value in sanitary chemistry, technical chemistry or analytical chemistry. Preparation of a thesis or a monograph for publication.

Professor Sanger and Adjunct-Professor Hunnicke.

BOTANY.

Professor Trelease and two Assistants. Three times a week.

1. Elementary Morphology and Organography, with reference to Ecology and Systematic Botany. Lectures and demonstrations.
 2. Elementary Anatomy and Phanerogamic Botany. Laboratory work.
 3. Synoptical Study of the Cryptogams. Laboratory work.
 4. A special study of some group of Cryptogams.
 5. Methods of Vegetable Histology. Laboratory work.
 6. Histology and Morphology of the Higher Plants. Laboratory work.
 7. A laboratory study of the minute anatomy of the lower Cryptogams.
 8. Technical Microscopy of Timbers. Laboratory work; a half course.
 9. Economic Botany. Lectures and laboratory demonstrations.
 - 10-11. Applied Mycology. Laboratory work.
 - 12-13. Garden Botany. Laboratory study of cultivated plants, at the Botanical Garden.
 - 14-15. Vegetable Physiology. Laboratory work.
 - 16-17. Bacteriological Technique. Laboratory work.
- It is intended that course 1 shall always be followed by course 2, the two being preparatory to other electives. For the pres-

ent, unless especial reason to the contrary exists, courses 1 and 2 only will be given each year, the remaining electives being offered the alternate years, as follows:—

For 1896-97.

First term, courses 1, 3, 12, 14, and 16.

Second term, courses 2, 4, 9, 13, 15, and 17.

For 1897-98.

First term, courses 1, 5, 8, 10, and 16.

Second term, courses 2, 6, 7, and 11.

Students who have taken courses 1 and 2, or have had their equivalent elsewhere, are admitted to any of the other elementary electives which can be taken without conflict with other University work; but students who desire to equip themselves as botanists are advised to take the electives as nearly as possible in the order in which they are offered, and on the completion of the elective courses should expect to devote not less than ten hours a week through an entire year to some piece of research work, selected under the advice of the Professor of Botany.

Special post-graduate study or investigation is planned to meet the needs of students, so far as the facilities of the School of Botany and the Botanical Garden permit.

ASTRONOMY.

Professor Pritchett.

1. Descriptive Astronomy. Lectures and recitations, with occasional work at the Observatory. *Three hours a week.*
2. Practical Astronomy. Applications of Astronomy in determination of Time, Latitude, Longitude and Azimuth. *Two hours* recitation, *two hours* observatory work. Spherical Trigonometry will be required for entrance to either of these courses.

The following courses are intended to form the basis of two years professional training in Astronomy.

3. Spherical Astronomy. Spherical co-ordinates and changes

- of reference planes. Text — Brunnow's Spherical Astronomy. *Three hours a week.*
- 4. Application of Spherical Astronomy with use of filar micrometer and equatorial telescope. *Two hours* lectures and *two hours* observatory work.
 - 5. Theory and Computation of Orbits. *Three hours* lectures or recitations.
 - 6. Theory of the Spectroscope and Study of Solar Physics. *Two hours* lecture work and *two hours* observatory work. For courses 3, 4, 5, and 6, preparation in Mathematics is required.

ZOOLOGY.

Adjunct-Professor Hambach. Three times a week.

- 1-2. Lectures and laboratory demonstrations.

GEOLOGY.

Adjunct-Professor Hambach.

- 1. General Course. *Two hours a week.*
- 2-3. Elementary and Systematic Geology. *Three hours a week.*
- 4-5. Palaeontology. *Three hours a week.*
- 6. Petrography. *Three hours a week.*

DRAWING.

Mr. Smith.

- 1. Freehand Drawing in outline of groups of objects, both from the objects themselves and from memory. The accurate observation of form and its correct expression. The study of proportions and the laws of perspective involved in freehand drawing from objects.

Practical Freehand Lettering for use on plates and working drawings.

Geometrical Drawing. Those problems in construction that are needed in the study of descriptive geometry, machine design, etc. *Six hours a week.*

2. Geometrical Drawing continued.

Machine Drawing. The making of working drawings from actual measurement of machines and parts of machines. The making of tracings and blue prints. *Six hours a week.*

3. Freehand Drawing and Shading from objects with pencil, pen and ink, and wash. The study of light and shade as a means of expressing form on a flat surface. The methods of suggesting in sketches the character of different materials.

Isometric Drawing from actual measurement or from sketches. In this work the drawings are line shaded. *Four hours a week.*

4. The essentials of Linear Perspective, with problems. The use of water color. *Two hours a week.***DESCRIPTIVE GEOMETRY.**

Professor Engler. Three times a week.

1. General problems of points, lines and planes; single curved, double curved and warped surfaces.

2. Tangency, intersections, shades and shadows, linear perspective.

SHOP-WORK.

1. Joinery; use and care of hand tools. Wood turning; center and face plate work. *Six hours a week.* *Mr. Swafford.*

2. Iron and steel forging; bending, drawing, upsetting, punching, splitting, welding, and tempering. *Six hours a week.* *Mr. Jones.*

3. Bench and machine work in metals; turning, boring, screw cutting, drilling, planing, chipping and filing. *Four hours a week.* *Mr. McFarland.*

CIVIL ENGINEERING.

1. Elements of Surveying, including the theory and practice of the use and adjustment of all the ordinary surveying in-

struments, such as the compass, level, transit, planimeter, tapes, chains, etc.; also the theory and practice of simple land surveying and leveling. *Two recitations a week, with field practice Saturday forenoon.*

Mr. Van Ornum.

2. **Topographical, Mining, and Railroad Surveying**, including the theory and practice of topographical surveying by the transit and stadia method and also by the plane table; problems in laying out simple and compound curves and turnouts, the passing of obstructions, adjustment of curves, etc., in railroad surveying. *Two recitations a week, with field practice Saturday forenoon.*

Mr. Van Ornum.

3. **Surveying in the Field.** Three weeks devoted to actual field practice by Sophomores who have taken courses 1 and 2, and Juniors in Civil Engineering, who have taken course 4. This practice includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a system of triangulation and levels which forms a part of the work of the survey. A railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time, and azimuth, and various other special problems worked out practically. The map of this survey is drawn only by the civil engineering students in the first term of the Junior year. This class goes to a suitable point at a distance from the city for this work.

Professor Johnson and Mr. Van Ornum.

4. **Higher Surveying**, including city, hydraulic, and geodetic surveying, with the principles of the construction of maps, also the principles governing the economic location of railways; also the drawing of the map of the Summer School of Surveying made the previous June. *Four recitations a week, field practice Saturday forenoon, and four hours a week in the drawing room.*

Mr. Van Ornum.

5. **Stereotomy.** Application of Descriptive Geometry to stone cutting, including groined, cloistered, and skew arches. *Three hours a week.* *Professor Engler.*
6. **The analysis of Stresses in Framed Structures,** including both analytical and graphical determinations of stresses in various styles of roof trusses, and of highway and railway bridges for distributed and concentrated, fixed and moving loads. *Three recitations a week.* *Mr. Van Ornum.*
7. **The Designing of Framed Structures.** The analysis of suspension, draw, and arch bridges, and an analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs; also the preparation of drawings showing all the details of some existing iron bridge, made from actual measurements taken by the students, and complete original designs of a plate girder, of a trussed roof, and of a highway bridge. *Four recitations a week, and eight hours a week drawing-room work.* *Professor Johnson.*
8. **Short Course in Framed Structures.** Designed for technical students not taking the course in Civil Engineering. Simple methods of analysis of stresses in framed structures, the principles governing the construction of joints, and the practical designing of a simple roof truss by the student. *Two recitations a week.* *Professor Johnson.*
9. **Masonry Structures.** The principles and practice of building masonry foundations, retaining walls, dams, arches, chimneys, etc., together with the study of the strength of the material involved. *Three recitations a week.* *Mr. Van Ornum.*
10. **Engineering Materials.** A review of the principles of mechanics relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of methods of testing the strength of materials and a discussion of the essential properties of the more common materials of engineering construction, such as iron, steel, wood, cement, stone, brick, etc. *Three recitations a week.* *Professor Johnson.*

11. Testing Laboratory Practice. Experimental tests in the testing laboratory made by the student on the strength of the various kinds of engineering materials named in 10. *Three hours a week for one year.* *Mr. Van Ornum.*
12. Hydraulics. A study of the theoretical and empirical laws of the flow of water as related to orifices, weirs, pipes, canals, natural channels, etc. *Two recitations a week.* *Professor Johnson.*
13. Irrigation and Drainage. The principles and practice of modern irrigation methods, including a study of all the elements of a complete irrigation scheme, and also a study of the methods of drainage of land.
City Water Supply. The principles and practice governing the collection, storage, pumping, settling, filtering, and distribution of potable waters, as modified by the various conditions governing the supply, and the various demands of the city service. *Two recitations a week.* *Professor Johnson.*
14. Sewerage and Drainage of Cities. The practical designing of systems of sewerage and drainage of cities, together with a study of the various methods of sewage disposal, the principles of house drainage, sanitary plumbing, etc. *Three recitations a week.* *Professor Johnson.*
15. Specifications and Contracts. The study of the principles of the law of contracts as applied to engineering work, together with typical forms of specifications governing both the commercial and the technical features of engineering construction, and of all the related documents pertaining to engineering contracts. *One recitation a week.* *Professor Johnson.*
16. Higher Course in the Strength of Engineering Materials. The elements of the theory of elasticity as applied to the strength of materials within the elastic limit, together with a study of the more elaborate special investigations in the strength and the fatigue of engineering materials, which have been made abroad, and of the various types

of testing machines in common use in this and in other countries. *Three recitations a week.* Professor Johnson.

17. River and Harbor Improvements. A study of the principles and of the current practice at home and abroad, in the matter of the improvement of low water navigation of inland rivers, together with the methods employed for the protection of unstable banks, and the prevention of destructive floods. Also, a study of the methods pursued in improvement works at the mouths of rivers, and in the construction of artificial harbors. *Three hours a week.*

Professor Johnson.

18. Advanced Course in Engineering Design. The preparation of original designs for various kinds of civil engineering structures, with all the computations, plans and specifications for the same. *Six hours a week.*

Professor Johnson.

19. The Economic Design of Metallic Bridges. A study of the principles of economy involved in the designing of such structures, with the application of these principles to all the more common styles of metallic truss bridges. *Two hours a week.*

Professor Johnson.

20. Seminary Work. The preparation of abstracts and reports on assigned subjects, the information to be found either from the direct study of the works themselves, or of descriptions of them as found in the technical library. These subjects are assigned to individual members of the class two or three weeks in advance of the date assigned for making the report, at which time the student occupies the hour in presenting the subject to the class and the instructor. One object of this course is to enable the students to become acquainted with the best engineering literature, whether in formal monographs, or in society proceedings, or in the leading technical journals. *Three hours a week.*

Professor Johnson.

21. Professional Thesis. An extended study or design, involving original investigation or experiment, intended to show

the ability of the student to conduct an important study of this kind to a successful issue.

Under the direction of *Professor Johnson.*

22. Structural Drawing. To accompany course 6. *Six hours a week.* *Mr. Van Ornum.*
23. Engineering Design. Supplementary to courses 7, 9, 13, 14. *Eight hours a week.* *Professor Johnson.*

MECHANICAL ENGINEERING.

1. Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work and escapements. *Three recitations a week.* *Mr. Boehm.*
2. Kinematics of Machinery. Trains of mechanism, epicyclic trains, and the efficiency of mechanisms. *Two recitations a week.* *Mr. Boehm.*
3. Machinery. The details of pipe-fitting, pulleys, shafting, belting, erecting machinery, dynamometers, lubrication and lubricants, and calorimeter tests of fuels. *Two lectures a week.* *Professor Kinealy.*
4. Elementary Steam Engineering. An elementary study of thermodynamics, the theory of the steam engine, types of engines, valves and valve diagrams, indicators and indicator cards, combustion of fuel, and boilers and chimneys. *Three recitations a week.* *Professor Kinealy.*
5. Machinery Drawing. The drawing of straight line motions, pipe-fittings, and the teeth of wheels. *Six hours a week.* *Mr. Boehm.*
6. Machinery Drawing. The drawing of details of the steam engine, link motions, and valve diagrams. *Six hours a week.* *Mr. Boehm.*
7. Mechanical Laboratory. The standardization of instruments, lining up and adjusting the steam engine, the use of the indicator, valve-setting, and tests of the steam engine. *Three hours a week.* *Mr. Boehm.*
8. Advanced Steam Engineering. The study of the details of

- different engines; also, the thermodynamics of heat engines. *Three recitations a week.* Professor Kinealy.
9. Steam Engine Designing. The theory and practice of engine designing. *Three lectures a week.* Professor Kinealy.
10. Steam Engine Designing. Work in drawing room to accompany course 9. *Six hours a week.* Professor Kinealy.
11. Steam Engine Designing. Work in drawing room to accompany course 9 for students in Electrical Engineering. *Two hours a week.* Professor Kinealy.
12. Steam Boiler and Chimney Designing. The theory and practice of boiler and chimney designing. *Two lectures a week.* Professor Kinealy.
13. Steam Boiler and Chimney Designing. Work in the drawing room to accompany course 12. *Six hours a week.* Professor Kinealy.
14. Machine Designing. Study of the principles involved in the designing of machines. *Two recitations a week.* Professor Kinealy.
15. Machine Designing. The transmission of power by shafting, gearing, belts and ropes. *Two recitations a week.* Professor Kinealy.
16. Hydraulic Machinery. The theory of pumping machinery, water wheels and turbines. *One hour a week.* Professor Kinealy.
17. (a) Mill and factory construction; slow burning construction. *Three lectures a week for a part of a term.*
- (b) The elements of the theory and practice of heating and ventilating buildings. *Three lectures a week for a part of a term.* Professor Kinealy.
18. Mechanical Laboratory. Tests of steam and gas engines, and tests of lubricants. *Three hours a week.* Mr. Boehm.
19. Mechanical Laboratory. Calorimeter tests of fuels, chimney gas analysis, boiler tests; visiting manufacturing establishments. *Six hours a week.* Mr. Boehm.

20. Mechanical Laboratory. A short course of work with the steam engine for students in Civil Engineering. *Two hours a week.* *Mr. Boehm.*
21. Heating and Ventilating, Refrigeration. Study in detail of the various systems of heating and ventilating buildings; an elementary discussion of refrigeration and refrigeration machinery. *Three hours a week.* *Professor Kinealy.*
22. Gas and Petroleum Engines. A study of gas and petroleum engines. *Two hours a week.* *Professor Kinealy.*
23. Designing. Work in the drawing room; making designs of shops and factories, power, plants, and heating and ventilating systems. *Six hours a week.* *Professor Kinealy.*
24. Mechanical Laboratory. Special investigations. *Six hours a week.* *Mr. Boehm.*
25. Power Transmission. The transmission of power by air and water. *Two hours a week.* *Professor Kinealy.*
26. Railway and Marine Engineering. Study of locomotives, and marine engines. *Three hours a week.* *Professor Kinealy.*
27. Thesis. A critical review of some mechanical construction, or a complete design of some machine or power plant.

THE COLLEGE.

ADMISSION.

Candidates for admission to the College will present themselves for examination on Monday, June 14, 1897, in room No. 8, east wing of the University Building, at 9 o'clock A. M. A second examination will be held on Tuesday and Wednesday, September 21 and 22, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, pass the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other colleges are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.*

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression.
- II. *Algebra*, including radicals and equations of the second degree.
- III. *Elementary Plane and Solid Geometry.* Wells' or Wentworth's Geometry or an equivalent.
- IV. *Latin.* Grammar, four books of Cæsar, seven orations of Cicero, and six books of the *Aeneid* of Virgil. Prose Composition.
- V. *Modern Language.* Either French or German at the option of the candidate; facility in reading ordinary prose at sight and knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.
- VI. *History.* Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools; of Greece and Rome, such as is found in Pennell's or Smith's Small Histories.
- VII. *Elementary Physics.* Either *a* or *b*.
 - a.* As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

* NOTE. Greek is not required for admission; but candidates who intend to continue the study of Greek after admission to the College must fulfill the following requirements:—

Goodwin's Grammar and Reader; or Grammar, four books of the *Anabasis*, and three books of the *Iliad*; prose composition.

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

SPECIAL STUDENTS.

Special students may be admitted to one or more courses in the College upon the following conditions:—

1. That evidence of proper preparation, satisfactory to the committee and to the instructors concerned, be submitted before admission to any course or courses.
2. That candidates for degrees who fail in the work of the regular courses shall not have the privilege of becoming Special Students, unless such failure shall come from physical inability to do the required work.
3. That Special Students shall not be regarded as candidates for a degree.

All matters concerning Special Students are referred to a standing committee of the Faculty, which is composed of Professors Snow, Waterhouse and Sanger. Applications should be made to Professor Snow, Chairman.

ARRANGEMENT OF STUDIES IN THE COLLEGE.

FRESHMAN YEAR.

* *Prescribed Studies.*

English, courses 1 and 2, three times a week.

German, courses 1 and 2, or French, courses 1 and 2, for those who do not present both of these languages for admission. Three times a week.

* The figures indicate the numbers of the Courses of Instruction.
See pp. 31-50.

Elective Studies.

In addition to the prescribed studies, every Freshman is required to take each term elective studies amounting to *three full courses*. No Freshman may elect more than one course in the same subject without the consent of the Dean.

The following courses are open to Freshmen:—

- Greek, 1, 2.
- Latin, 1, 2.
- English, 1, 2.
- German, 1, 2.
- French, 1, 2.
- History, 1, 2.
- Mathematics, 1, 2.
- Drawing, 1, 2.
- Physics, 1, 2.
- Chemistry, 1, 2.
- Botany, 1, 2.

A Freshman who is qualified to take a higher course in any study named above may do so, with the permission of the instructor of the course and the Dean of the College.

SOPHOMORE AND JUNIOR YEARS.

The prescribed work of the Sophomore and Junior years consists of:—

English, courses 3, 4, and 5, 6.

Besides the prescribed courses every Sophomore and every Junior is required to take each term *four elective courses*, or an equivalent amount of courses and half courses.

SENIOR YEAR.

Eight courses, all elective, are required for the Senior year.

ADVISERS.

A Standing Committee of five members of the Faculty is appointed annually to advise students of the College

in the choice of studies and to assist them in making a wise arrangement of their work. The Committee for the year 1896-97 consists of Professors Snow, Waterhouse, Pritchett, Trelease, Heller.

CHOICE OF STUDIES.

Every student is required to give notice in writing to the Dean of the College on the first day of each term of his choice of studies for that term.

Changes may be made only by permission of the Advisers, to whom application must be made in writing, with a full statement of reasons.

No student will be allowed to elect any course for which his previous training has not fully prepared him.

REQUIREMENT FOR THE DEGREE OF BACHELOR OF ARTS.

The satisfactory completion of thirty-eight courses of one term each, with three recitations a week (or their equivalent), is necessary to fulfill the requirements for the degree of Bachelor of Arts.

THE SCHOOL OF ENGINEERING.

ADMISSION.

Candidates for admission to the School of Engineering will present themselves for examination on Monday, June 14, 1897, in room No. 8, east wing of the University Building, at 9 o'clock A. M. A second examination will be held on Tuesday and Wednesday, September 21 and 22, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, pass the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other institutions are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; cleanliness and conciseness of expression.
- II. *Algebra*, including radicals and equations of the second degree.
- III. *Elementary Plane and Solid Geometry.* Wells' or Wentworth's Geometry or an equivalent.
- IV. *Modern Language.* Either French or German at the option of the candidate; facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.
- V. *History.* Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools.
- VI. *Elementary Physics.* Either *a* or *b*.
 - a.* As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."
 - b.* An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."
- VIII. *Drawing.* *a.* Free-hand drawing in outline from groups of simple objects. *b.* Simple free-hand lettering.

Candidates for the Freshman Class must be at least sixteen years old.

ARRANGEMENT OF STUDIES IN THE SCHOOL OF ENGINEERING.

The courses of study in the School of Engineering are five in number:—

- I. Civil Engineering.
- II. Mechanical Engineering.
- III. Electrical Engineering.
- IV. Chemistry.
- V. Science and Literature.

* **FRESHMAN YEAR.**

The same for all Courses.

FIRST TERM.

Mathematics, 1. †	Chemistry, 1.
Physics, 1.	English, 1.
French or German } 1 or 3.	Drawing, 1.

SECOND TERM.

Mathematics, 2.	Chemistry, 2.
Physics, 2.	English, 2.
French or German } 2 or 4.	Drawing, 2.

I. CIVIL ENGINEERING.

FRESHMAN YEAR.

(See above.)

SOPHOMORE YEAR.

FIRST TERM.

Mathematics, 3.	Descriptive Geometry, 1.
Physics, 3.	Civil Engineering, 1.

* In the School of Engineering all the studies for each course are prescribed; there is no choice except as indicated.

† The figures indicate the numbers of the Courses of Instruction.
See pp. 81-50.

French or } 3 or 5.
 German Drawing, 8.
 Shop-work, 1.

SECOND TERM.

Mathematics, 4.	Civil Engineering, 2, 3.
Physics, 4.	Drawing, 4.
Mechanics, 1.	Shop-work, 2.
Descriptive Geometry, 2.	

JUNIOR YEAR.**FIRST TERM.**

Mathematics, 5.	Mechanics, 2.
Civil Engineering, 4, 5.	Physics, 5.
Chemistry, 12.	Shop-work, 8.

SECOND TERM.

Civil Engineering, 6, 10, 22.	Mechanics, 3.
Mechanical Engineering, 4.	Physics, 6.
Geology, 1.	

SENIOR YEAR.**FIRST TERM.**

Civil Engineering, 7, 11, 12, 18.	Mechanics 4, 6.
Mechanical Engineering, 20.	Astronomy, 1.

SECOND TERM.

Civil Engineering,	Mechanics, 5.
9, 11, 14, 15, 16, 23.	Astronomy, 2.
Mechanical Engineering, 16.	

FIFTH YEAR.**FIRST TERM.**

Civil Engineering, 16, 17, 18, 20.	Mathematics, 7.
Physics, 7.	Political Economy, 1.

SECOND TERM.

Civil Engineering, 20, 21, 22.	Mathematics, 6.
Mechanical Engineering, 18, 19.	Chemistry, 17.

II. MECHANICAL ENGINEERING.**FRESHMAN YEAR.**

(See p. 58.)

SOPHOMORE YEAR.**FIRST TERM.**

Mathematics, 3.	Descriptive Geometry, 1.
Physics, 3.	Civil Engineering, 1.
French or } 3 or 5.	Drawing, 3.
German,	Shop-work, 1.

SECOND TERM.

Mathematics, 4.	Civil Engineering, 2, 3.
Physics, 4.	Drawing, 4.
Mechanics, 1.	Shop-work, 2.
Descriptive Geometry, 2.	

JUNIOR YEAR.**FIRST TERM.**

Mechanical Engineering, 1, 3, 5..	Mechanics, 3.
Physics, 5.	Shop-work, 3.
Mathematics, 5.	

SECOND TERM.

Mechanical Engineering,	Mechanics, 3.
2, 4, 6, 7.	Physics, 6.
Civil Engineering, 8, 10.	

SENIOR YEAR.**FIRST TERM.**

Mechanical Engineering,	Mechanics, 4.
8, 9, 10, 14, 18.	Physics, 7, 8.
Civil Engineering, 11, 12.	

SECOND TERM.

Mechanical Engineering, Civil Engineering, 11, 15.
 12, 13, 15, 16, 17, 19. Mechanics, 5.

FIFTH YEAR.

FIRST TERM.

Mechanical Engineering, Mathematics, 7.
 21, 22, 23, 24. Physics, 15.
 Political Economy, 1. Astronomy, 1.

SECOND TERM.

Mechanical Engineering, Mathematics, 6.
 25, 26, 27. Chemistry, 17.

III. ELECTRICAL ENGINEERING.

FRESHMAN YEAR.

(See p. 58.)

SOPHOMORE YEAR.

FIRST TERM.

Mathematics, 3. Descriptive Geometry, 1.
 Physics, 3. Civil Engineering, 1.
 French or } 3 or 5. Drawing, 3.
 German } Shop-work, 1.

SECOND TERM.

Mathematics, 4. Civil Engineering, 2, 3.
 Physics, 4. Drawing, 4.
 Mechanics, 1. Shop-work, 2.
 Descriptive Geometry, 2.

JUNIOR YEAR.

FIRST TERM.

Physics, 5. Mathematics, 5.
 Mechanical Engineering, 1, 3, 5. Mechanics, 2.
 Chemistry, 12. Shop-work, 3.

SECOND TERM.

Physics, 6.	Mechanics, 3.
Mechanical Engineering,	Civil Engineering, 8, 10.
2, 4, 6, 7.	Geology, 1.

SENIOR YEAR.

FIRST TERM.

Physics, 7, 8, 9.	Mechanics, 4.
Mechanical Engineering,	Civil Engineering, 11, 12
8, 9, 10, 14.	

SECOND TERM.

Physics, 10, 11, 18.	Mechanics, 5.
Mechanical Engineering,	Civil Engineering, 11.
12, 15, 16.	

FIFTH YEAR.

FIRST TERM.

Physics, 12, 14.	Mathematics, 7.
Astronomy, 1.	Political Economy, 1.

SECOND TERM.

Physics, 10, 12, 14.	Mathematics, 6.
Mechanical Engineering, 16.	Mechanics, 6.
Thesis.	Civil Engineering, 15.

IV. CHEMISTRY.

FRESHMAN YEAR.

(See p. 58.)

SOPHOMORE YEAR.

FIRST TERM.

Chemistry, 3, 5, 12.	Mathematics, 3.
Physics, 3.	French or } 8 or 5. German }

SECOND TERM.

Chemistry, 4, 6, 13.	Mathematics, 4.
Mechanics, 1.	French or } 4 or 6.
Physics, 4.	German }

JUNIOR YEAR.**FIRST TERM.**

Chemistry, 7, 9, 14.	French } 1 or 3
Physics, 5.	or
Mathematics, 5.	German } 5 or 7.

SECOND TERM.

Chemistry, 8, 10, 15.	French } 2 or 4
Physics, 6.	or
Scientific German.	German } 6 or 8.

SENIOR YEAR.**FIRST TERM.**

Chemistry, 16, 18, and 20 or 22.

Electives — These elective courses will be selected, after consultation with the instructors, according to the direction of the student's work. Among such courses may be mentioned: Electricity, Botany, Geology, and Bacteriology.

SECOND TERM.

Chemistry, 11, 19, and 21 or 28.

Electives — As specified under the work of the first term, with the addition of Course 17.

Preparation of Thesis.

V. SCIENCE AND LITERATURE.**FRESHMAN AND SOPHOMORE YEARS.**

(See p. 58.)

JUNIOR YEAR.

The work of the Junior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

SENIOR YEAR.

The work of the Senior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

THE OBSERVATORY.

The work of the Observatory comes under three heads:—

1. Practical instruction is given in the determination of time, latitude and longitude, and the ordinary observations of spherical astronomy. Students desiring a special professional course in astronomy will be given full facilities in both reading and practice.

2. A regular scheme of scientific work is carried on. This work embraces equatorial observations of the planets and double stars, together with a large amount of meridian work.

3. As far as possible it is the intention to give in the Observatory opportunities for popular instruction and for viewing the more interesting objects.

The instrumental equipment is well adapted for in-

struction in Sidereal Astronomy. The following are the principal instruments:—

The Equatorial — Objective 6 1-2 inches, reground by Clark; mounted in most excellent style by Warner & Swazy, Cleveland, Ohio. The mounting includes driving clock, micrometers, circles and a complete battery of eye-pieces.

The George Partridge Transit Instrument — Objective 3 inches. The instrument was made by Fauth & Co., and is equipped in the most complete manner.

Chronograph — Bond Spring Governor.

Break-circuit Clocks — Mean-time clocks by Hohwii, mean-time clock by Howard and sidereal clock by Howard.

Chronometer (Break-circuit) — By Dent.

Altazimuth — Circle 2 feet in diameter — mounted as meridian circle.

A temperature box for delicate tests in thermometric and horological work has been presented by the Waltham Watch Company of Waltham, Mass.

Several hack clocks and a large amount of electrical apparatus are used in the time service.

The time service of the Observatory has become an important feature of its work both in the city and throughout the Mississippi Valley.

The signals sent consist of automatic clock beats transmitted over the wires and give the time referred to the ninetieth meridian from Greenwich, known as "central" time. They are sent daily over many thousands of miles of wire and reach most of the railroad towns in Missouri, Kansas, Iowa, Arkansas, Illinois and the more important

cities in Indiana, Ohio, Kentucky, Tennessee, Louisiana, Mississippi and Alabama.

The longitude of the Observatory has been determined from Washington by four independent exchanges involving change of observers to eliminate personal equation. Its astronomical position is now among the best determined in the country. This fact, together with its position at the center of a large telegraph system, makes it a most convenient reference point for the determination of western and southern longitudes.

APPLIANCES IN CIVIL ENGINEERING.

Surveying Instruments.—The equipment includes three transits for ordinary field work, one altazimuth instrument for triangulation and astronomical work, reading to ten seconds of arc on both horizontal and vertical circles, two engineer's levels, two needle compasses, one sextant, one plane table, one 300-foot steel tape standardized, with all the necessary accompanying apparatus for field and office work, such as stadia boards, stadia slide-rules, chains, tapes, signals, protractors, parallel rules, etc.

There is also a complete mining transit, adapted to the use of the stadia, which may be used for topographical work if required.

Library, Models and Drawings.—There is a well selected working library accessible to the Senior and Fifth Year students which they consult freely on assigned topics. There is also a large assortment of drawings of the most interesting engineering and architectural structures at home and abroad. Many photographs and blue

prints have been collected illustrating all the more common styles of bridges with their details.

The Testing Laboratory.—The facilities in the testing laboratory are very complete. A floor space of about 2,400 square feet is occupied with the following appliances: two Riehlé universal testing machines with a capacity of 100,000 lbs. and 20,000 lbs. respectively, a beam testing machine, with a capacity of 100,000 lbs. on a length of 24 feet; two beam testing machines with a capacity of 6,000 lbs. on a length of five feet with micrometer deflection measuring apparatus; a column testing machine with capacity of 1,000,000 pounds on a length of 36 feet or less; cement testing machines of the Fairbanks, the Riehlé, and the Olsen types; a complete standard set of German briquet making and testing machines and scales, with pounding apparatus; an extensometer apparatus reading to ten thousandths of an inch; one eight-horse power steam engine; one five-horse power dynamo; one planer and one lathe for iron work; one wood planer, one band saw, and one cutting off circular saw for shaping timber specimens; two drying ovens and three sets of scales; a dry kiln with steam coil and exhaust fan for drying lumber; complete sets of bench and carpenter's tools, standard gauges, scales, etc.

APPLIANCES IN MECHANICAL ENGINEERING.

Drawings and photographs illustrating the best practice in all branches of mechanical engineering, including a number of drawings of the machinery of ships for the U. S. Navy, and examples of the best practice in the

construction of locomotives, stationary engines, and machine tools are provided. Students have access to a small but modern and carefully selected technical library, and to a number of the best technical journals.

The laboratory contains a steam engine, a Westinghouse air compressor, a Bogart gas and gasoline engine, a Carpenter steam calorimeter, a pair of Crosby indicators, a planimeter, a tachometer, a Thompson coal calorimeter, a pyrometer, a complete set of apparatus for testing lubricants, a standard gas meter, a standard test gauge, a Prony brake, thermometers, revolution counters, and such tools as are necessary for the proper use of the above.

Students have access to the shops of the St. Louis Manual Training School, in which they receive a training in the use and care of metal and wood-working tools and machinery.

APPLIANCES IN ELECTRICAL ENGINEERING.

The Electrical Engineering Laboratory contains a high speed Buckeye Engine of twenty horse power; two Gramme dynamos, the one being a series and the other a shunt-wound machine; smaller motors of various types; voltmeters, ampèremeters and galvanometers of various types and capacities; a Brackett cradle-ergometer upon which one dynamo is mounted and by which the power applied to it can be measured; a Wheatstone bridge; a Prony brake; a Siemens electro-dynamometer; a mercury column fifty feet in height, which is arranged for testing steam gauges and indicator springs at any tem-

perature, and a compression air-pump capable of working to twenty atmospheres.

The rooms are wired conveniently for practical measurements upon the electric plant, and for the measurement of candle power of lamps. The alternating current from the public mains of the Missouri Electric Light and Power Company is carried to the laboratory switchboard, and is thus available for experimental work.

LECTURE FOUNDATIONS.

A Lecture Endowment Fund, amounting to twenty-seven thousand dollars (\$27,000), was created in 1875, by one of the early friends of the University, MR. WILLIAM HENRY SMITH. It was given without any restrictions, except that the fund should be increased, if practicable, by accruing interest, to \$30,000, which has been accomplished, and that no part of the principal should be expended.

The beginning of a fund for the encouragement of the study of American History has been made by a gift of \$15,000, by MRS. MARY HEMENWAY, of Boston, Massachusetts.

Upon this foundation a *University Professorship of American History* has been established, and the chair was filled in 1884 by the appointment of Dr. John Fiske, of Cambridge, Mass.

LIBRARY AND READING ROOM.

Necessary books of reference are provided, and also a good selection of periodical literature. No attempt is made at present to gather a general library. During the

year 1880 a gift of about three thousand volumes was received from the family of the late Joseph Coolidge, of Boston. The collection, known as the *Coolidge Library*, is especially rich in excellent editions of Italian and French authors, and is a very material addition to the usefulness of the library.

Through the liberality of a number of citizens of St. Louis, an arrangement has been made by which the privilege of using the Mercantile Library has been extended, under prescribed conditions, to such members of the University as may be designated by the Chancellor.

Property valued at \$66,000 has been given to the University by the late Mr. Stephen Ridgley, of St. Louis, upon the condition that the income shall accumulate until, in the judgment of the Board of Directors, the amount shall be sufficient to erect and maintain a fire-proof Library Building. The gift has been thankfully accepted upon that condition.

GYMNASIUM.

A gymnasium for the use of the Undergraduate Department is supplied with all necessary apparatus. While encouraging and even requiring systematic and wholesome exercise, the University does not wish to foster undue interest in the feats of athletes, and discourages exercises which involve personal risk to the performers. All class exercises are conducted by a professional instructor.

SCHOLARSHIPS.

One *perpetual* scholarship, founded by the payment of \$5,000 and entitling the holder to all the advantages of

all the departments of the University forever, has been placed at the disposal of the Mercantile Library Association with the recommendation "that when applicants for scholarship are of equal merit, the preference shall be given to one for some mechanical pursuit."

One scholarship is also held by the St. Louis HIGH SCHOOL which entitles the ranking student of the graduating class of each year to free admission to the Undergraduate Department, in accordance with a resolution of the Board of Directors when the College was organized.

One scholarship is also held by the School Board of Kansas City for the benefit of a graduate of the Kansas City High School. This scholarship entitles the holder (who is to be selected by the School Board) to free tuition in the College or the School of Engineering. Reports of the standing of the student will be made to said Board annually by the Dean.

A trust fund of \$20,000 has been accepted by the University from the WESTERN SANITARY COMMISSION, for the establishment of TWENTY FREE SCHOLARSHIPS in the Undergraduate Department, to be filled by children or descendants of Union soldiers who served in the late civil war. In default of such applicants, candidates will be appointed by the Chancellor of the University with the advice of the Faculty. Preference is given to those in straitened circumstances, and no student is accepted or continued who is not of good moral character, who does not sustain satisfactory examinations, or who fails to comply with the rules of the Institution.

From the same source a SUSTENTATION FUND of \$10,000 has been accepted, the income of which is expended in

aid of students in straitened circumstances, giving preference always to the descendants of Union soldiers, as above.

EXAMINATIONS.

The examinations in the Undergraduates Department are frequent and rigid, and, whenever it is possible, in writing. No promotions to higher classes are made except upon conclusive evidence that the antecedent subjects have been well mastered. Reports of the standing of individual students will be made by the Deans of the Faculties to parents or guardians, if such are requested.

DEGREES IN THE UNDERGRADUATE DEPARTMENT.

I. IN THE COLLEGE.

The degree of *Bachelor of Arts* is conferred upon the satisfactory completion of the requisite number of courses.

II. IN THE SCHOOL OF ENGINEERING.

1. On the satisfactory completion of four years' work the degree of *Bachelor of Science* is conferred.
2. On the completion of a fifth year, degrees corresponding to the courses of study are conferred, as follows:—

- I. Civil Engineer.
- II. Mechanical Engineer.
- III. Electrical Engineer.

The Bachelor degrees are in three grades indicated by the words *cum laude*, *magna cum laude* and *summa cum laude*, respectively.

Every member of the graduating class who has attained *ninety per cent* of the maximum mark on the general scale for the four years, may be recommended for a degree *summa cum laude*.

Every member of the graduating class (not recommended for the degree *summa cum laude*) who has attained *eighty-five per cent* of the maximum mark on the general scale for the four years, may be recommended for a degree *magna cum laude*.

Every member of the graduating class (not recommended for the degree *summa* or *magna cum laude*) who has attained *eighty per cent* on the general scale for the four years, may be recommended for a degree *cum laude*.

No student will be recommended for a degree who has not passed all his examinations successfully and handed in such projects or theses as may be required.

The diploma fee is three dollars, payable in advance.

ADVANCED DEGREES.

The degree of *Master of Arts* is open to all who have received from this University the degree of Bachelor of Arts.

The degree of *Master of Science* is open to all who have received from this University the degree of Bachelor of Science, of Civil Engineer, of Mechanical Eugineer, of Electrical Engineer, or of Engineer of Mines.

The degree of *Doctor of Philosophy* is open to all who have received the degree of *Master* from this University.

The degrees of *Master of Arts*, *Master of Science* and *Doctor of Philosophy* are open to graduates of other

institutions who shall have satisfied the Faculty of the Undergraduate Department that the courses of study for which they have received degrees are equivalent to those for which such degrees are given in Washington University.

REQUIREMENTS FOR THE MASTER'S DEGREE.

Candidates for the degree of *Master* must offer at least one year's residence at the University, and satisfactory evidence, to be determined by examination, of a proper amount of non-professional study and attainment in advance of undergraduate work, and must present an acceptable thesis based upon such work.

REQUIREMENTS FOR THE DOCTOR'S DEGREE.

The degree of *Doctor* will not be recommended in less than one year after the granting of the Master's degree.

Candidates for the degree of *Doctor* must offer at least one year of residence at the University, and satisfactory evidence, to be determined by examination, of a proper amount of non-professional study and attainment in advance of the work required for the Master's degree; and must present an acceptable thesis, the result of original investigation.

Candidates for the degree of *Master*, or that of *Doctor*, must present as early as the first of October of each year a written statement of subjects, courses of study, etc., for the approval of the Faculty.

All theses must be presented to the Faculty as early as the fifteenth of May.

The diploma fee is five dollars, payable in advance.

TUITION.

Tuition in the Undergraduate Department is \$150 a year, payable semi-annually, in advance if required, and always before the middle of the term.

A matriculation fee of five dollars is charged to all who enter this Department, payable in advance.

BOARD AND LODGING.

Students living at a distance from the University have no difficulty in securing rooms and board at reasonable rates. The yearly expenses may range between the following estimates, according to taste and habits of economy: —

Tuition	\$150 00	—	\$150 00
Board, lodging, and washing, 9 months . . .	200 00	to	300 00
Books and instruments	10 00	"	20 00
Incidentals	15 00	"	30 00
<hr/>			
Total for the year	\$375 00	to	\$500 00

Books and instruments may be obtained at cost from the *Co-operative Association*, organized and managed by students of this Department.

HENRY SHAW SCHOOL OF BOTANY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

HENRY SHAW SCHOOL OF BOTANY.

ESTABLISHED JUNE 8, 1885.

ADVISORY COMMITTEE.

THE CHANCELLOR OF THE UNIVERSITY, *ex officio*.
WILLIAM G. FARLOW, M. D.
GEO. J. ENGELMANN, M. D.
GEORGE E. LEIGHTON.
WILLIAM L. HUSE.

INSTRUCTORS.

WILLIAM TRELEASE,
ENGELMANN PROFESSOR OF BOTANY.

WILLIAM H. RUSH,
GENERAL INSTRUCTOR.

ORVILLE L. SIMMONS,
INSTRUCTOR IN CRYPTOGAMIC BOTANY.

ELLEN C. CLARK,
ASSISTANT AT THE MARY INSTITUTE.

GENERAL INFORMATION.

In June, 1885, Mr. Henry Shaw, of St. Louis, authorized the Chancellor of the University to place before the Board of Directors a plan of action for the establishment of a School of Botany, as follows:—

That he proposed, with the concurrence of the Directors, to endow a SCHOOL OF BOTANY as a department of Washington University, by donation of improved real estate, yielding over \$5,000 revenue, and to place it in such relation with the largely endowed Missouri Botanical Garden and Arboretum, as would practically secure their best uses, for scientific study and investigation, to the professor and students of the said School of Botany, in all time to come.

At the meeting of the Board of Directors held June 8, 1885, the following resolutions were, therefore, offered, in grateful acceptance of Mr. Shaw's proposal:—

1. That a School of Botany be established as a special department of Washington University, to be known as the Henry Shaw School of Botany.
2. That a professorship of Botany be therein established, to be known as the Engelmann Professorship.
3. That Professor Wm. Trelease, of the University of Wisconsin, be invited to fill the same; his duties to begin at the commencement of the next academic year, September 17.
4. That said School of Botany be placed under the special care and direction of an advisory Committee, to consist of five members, of whom two shall be members of this Board, and two shall be selected outside of the Board,—the Chancellor of the University being a member *ex officio*.

This report was accepted and the resolutions unanimously adopted. The record of such action was then submitted to Mr. Shaw and approved by him.

On this foundation, the School of Botany was opened in the autumn of 1885. In his will, admitted to probate in 1889, Mr. Shaw further provided for the maintenance of the income of the School up to a certain limit, and took steps calculated to secure the proposed close co-operation between the School of Botany and the Botanical Garden.

The laboratory of the School of Botany is temporarily located at 1724 Washington avenue, and a small library, containing the usual laboratory manuals and class books, which is kept at the laboratory for reference, is added to as new books, needed for class work, appear. In addition to alcoholic and imbedded material, a small herbarium is being formed, which is intended to contain representatives of the local flora. Advanced students, some of whose work is done at the Garden, also have the privilege of consulting, under necessary restrictions, the excellent herbarium and library maintained there, and now comprising about 250,000 sheets of specimens, something over 23,000 books and pamphlets, and a large collection of wood veneers and sections; and no effort is spared to make the Garden equipment as complete as possible in any line of work taken up by competent investigators.

The instrumental equipment of the laboratory includes one microscope by Zeiss, with the necessary objectives, ranging from A. A. to 1-18 in. oil immersion, and accessories for spectroscopic studies and work with polarized light; twenty microscopes by Leitz, with the objectives needed for the best work (including five 1-12 in. oil immersion lenses, one 1-16 in. oil immersion, and one 1-20 in. oil immersion), polariscope, camera lucidas of several patterns, etc.; sixteen dissecting microscopes by Bausch and Lomb; two dissecting microscopes by Leitz, one of

them provided with camera lucida; a projecting apparatus for delineating objects under a low power of enlargement; a simple outfit comprising all that is necessary for ordinary bacteriological investigation; and the apparatus needed for histological work and elementary physiological experimentation. Students are provided by the laboratory with all necessary instruments and supplies (excepting razors or other cutting instruments) without charge except for breakage or other injury and for slides and cover glasses used for permanent preparations; but when alcohol or other expensive substances are used in quantity, as in work on bacteria, a special charge may be made for material used.

The working year of the School of Botany is of the same extent as that of the Undergraduate Department of the University, and is similarly divided, except for a few special teachers' classes corresponding to the usual school terms.

The work offered students is of two classes: undergraduate studies, including at present fifteen stated electives,—the equivalent of nearly three full years' work,—and post-graduate or special courses for advanced students planned in each case to meet the needs of the student. For the convenience of students, nearly all elementary instruction is given at the laboratory, near the other University buildings, where the principal instrumental equipment is kept, but the study of living plants, and advanced herbarium and library work, are provided for at the Garden. All courses capable of being so taught are given in the laboratory, and supplemented by lectures and quizzes by the teacher. The few lecture courses offered are illustrated wherever possible by

specimens exhibiting the subject under consideration, and by wall charts and the free use of the crayon.

A list of the undergraduate electives is given above (p. 31), in the general information concerning the Undergraduate Department. Under the advice of the Dean of the College, and the professor of botany, students who wish to make a specialty of botany through their course may arrange to take all of these electives and to follow them by a piece of investigation on which a thesis is to be based, and regularly enrolled special students who are not candidates for a degree may give the greater part of their time to botanical study, subject to such regulation as is prescribed by the Faculty.

Special classes, for the benefit of teachers and other persons not in attendance at the University, are formed from time to time, and such persons may be admitted to any of the regular electives on the payment of a tuition fee conformed to the general rates of the University, namely, \$15.00 for each full course (of three exercises per week during a semester), and \$7.50 for each half course (of less than three exercises per week for the same length of time). Graduates of the University and of the Mary Institute are not subject to any charge for tuition.

Graduate students who are eligible under the rules of the Faculty to candidacy for higher degrees, if suitably prepared may elect research work in botany as their principal study for such degrees.

Applications for the formation of special classes, and all correspondence concerning the School of Botany, should be addressed to

WILLIAM TRELEASE,
Shaw School of Botany,
St. Louis, Mo.

ST. LOUIS SCHOOL OF FINE ARTS.

(ART DEPARTMENT OF WASHINGTON UNIVERSITY.)

19th Street and Lucas Place.

CALENDAR.

1896-1897.

FIRST TERM, DAY SCHOOL, begins Monday, September 21, 1896.

FIRST TERM, DAY SCHOOL, ends Saturday, December 12, 1896.

FIRST TERM, NIGHT SCHOOL, begins Monday, November 2d, 1896.

FIRST TERM, NIGHT SCHOOL, ends Saturday, January 30th, 1897.

SECOND TERM, DAY SCHOOL, begins Monday, December 14th, 1896.

SECOND TERM, DAY SCHOOL, ends Saturday, March 13th, 1897.

SECOND TERM, NIGHT SCHOOL, begins Monday, February 1st, 1897.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 24th, 1897.

THIRD TERM, DAY SCHOOL, begins Monday, March 15th, 1897.

THIRD TERM, DAY SCHOOL, ends Saturday, June 5th, 1897.

EXHIBITION OF STUDENTS' WORK, June 8-10, 1897.

1897-1898.

FIRST TERM, DAY SCHOOL, begins Monday, September 20, 1897.

FIRST TERM, DAY SCHOOL, ends Saturday, December 11th, 1897.

FIRST TERM, NIGHT SCHOOL, begins Monday, November 1st, 1897.

FIRST TERM, NIGHT SCHOOL, ends Saturday, January 29th, 1898.

SECOND TERM, DAY SCHOOL, begins Monday, December 13th, 1897.

SECOND TERM, DAY SCHOOL, ends Saturday, March 12th, 1898.

SECOND TERM, NIGHT SCHOOL, begins Monday, January 31st, 1898.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 23d, 1898.

THIRD TERM, DAY SCHOOL, begins Monday, March 14th, 1898.

THIRD TERM, DAY SCHOOL, ends Saturday, June 4th, 1898.

EXHIBITION OF STUDENTS' WORK, June 7th-9th, 1898.

ST. LOUIS SCHOOL OF FINE ARTS.

REORGANIZED MAY 22, 1879.

The establishment of an Art School upon a broad and permanent foundation has always been part of the plan of Washington University. For nearly twenty-five years Art instruction has been embodied in the course of study. In 1875, special students were admitted to the Drawing Department, and class and public lectures were given on Art History. The same year an evening school was opened.

On May 22, 1879, the Directors of the University adopted an ordinance establishing a Department of Art in Washington University, from which the following extracts are taken: —

“A Department of Art is hereby established as a special Department of Washington University, to be known as THE ST. LOUIS SCHOOL OF FINE ARTS.

“The objects of said Department shall be: Instruction in the Fine Arts; the collection and exhibition of pictures, statuary, and other works of art, and of whatever else may be of artistic interest and appropriate for a Public Gallery or Art Museum; and, in general, the promotion by all proper means of æsthetic or artistic education.”

BOARD OF CONTROL.

ELLIS WAINWRIGHT, PRESIDENT.

WINFIELD S. CHAPLIN, CHANCELLOR, *ex officio*.

J. G. CHAPMAN.

DANIEL CATLIN.

GEO. E. LEIGHTON.

CHARLES PARSONS.

CHARLES NAGEL.

ISAAC W. MORTON.

GEORGE D. BARNARD.

DAVID C. BALL.

HALSEY C. IVES, DIRECTOR, *ex officio*.

INSTRUCTORS.

HALSEY C. IVES, DIRECTOR.

HOLMES SMITH. W. H. PALMER.

EDMUND H. WUERPEL. ROBERT BRINGHURST.

ALICE M. MORE. CHARLES P. DAVIS.

WM. PELL PULIS. C. F. VON SALTZA.

EDWARD M. CAMPBELL.

ASSISTANT IN ELEMENTARY WORK.

JUSTINA V. A. PHILLIPS.

**NOTE.—All communications in regard to the school should
be addressed: ST. LOUIS SCHOOL OF FINE ARTS.**

**A. M. MORE,
*Secretary.***

GENERAL INFORMATION.

There are three terms in the year.

Students will be admitted at any time, but not for less than one term, except by special arrangement with the Director.

The school furnishes instruction in Drawing, Modeling, Painting, Artistic Anatomy, Perspective, Composition, Architectural and Mechanical Drawing.

The rooms are open for the study of drawing, painting, and modeling, every day during each term from 9 a. m. to 4 p. m. and for the study of drawing from the Antique and Life, mechanical drawing and modeling three evenings in the week, from November to May.

Students may enter any class upon submitting examples of work showing the necessary skill. Applicants for admission to the evening Life Class must submit a drawing of a full length figure from the Antique or Life.

Students who can pass the necessary examination may study Modern Languages, History and Literature in classes of the Undergraduate Department of the University.

The school is fully equipped with models, casts from the Antique, *et cetera*.

The class rooms are well lighted and ventilated and excellently adapted to the purposes of the school.

The artists connected with the school as teachers have received their training in the Art Schools of Europe.

All finished work must be left in the school or if re-

moved by special permission, must be returned before the close of the school year for final examination by the committee appointed for that purpose.

Instruction in all classes of the school is individual. Advancement of each student depends on the degree of proficiency only. Students are at liberty to work as much or as little as they desire between the hours of 9 a. m. and 4 p. m.

TUITION FEES.

(Payable in advance to the Treasurer of Washington University.)

* Tuition per term, with privileges of all classes and lectures	\$37 50
* Saturday class for adults and juveniles, per term	10 00
Evening Class, Antique or Sketching from Life, three times per week for term of twelve weeks	5 00
Evening Life Class, three times per week for term of twelve weeks	7 50
Evening class, Elementary, three times per week for term of twelve weeks	5 00
Evening Class, Architectural and Mechanical Drawing, three times per week for term of twelve weeks	5 00
Evening Class, Modeling, three times per week for term of twelve weeks	5 00

* In the case of students enrolling in the school during the first term and continuing through the year the tuition fee for the third term will be remitted.

PROGRAMME.**MORNING.**

Elementary Model and Object Class, daily, from 9 to 12 o'clock.
Antique Class, daily, from 9 to 12 o'clock.
Life Class (model nude) daily (except Saturdays), from 9 to 12 o'clock.

AFTERNOON.

Modeling Class, daily from 1 to 4 o'clock.
Painting Class (Still-Life, Drapery, etc.), daily, from 1 to 4 o'clock.
Head Painting Class, daily, from 1 to 4 o'clock.

SATURDAY.

Elementary Model and Object Class, from 9 to 12 o'clock.
Antique Class, from 9 to 12 o'clock.
Sketch Class (models in costumes), from 9 to 12 o'clock.
Modeling Class, from 9 to 12 o'clock.

SATURDAY JUVENILE CLASS.

Drawing from objects, from 9 to 12 o'clock.
Modeling from 9 to 12 o'clock.

NIGHT.

Life Class (model nude), Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.
Portrait Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.
Elementary Class in Drawing, Monday, Tuesday and Thursday from 7:30 to 9:30 o'clock.
Antique Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Mechanical Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Architectural Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Modeling, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Advanced students are afforded opportunity for study from life — draped and nude models — forty hours per week.

COURSE OF INSTRUCTION.

The course of instruction is as follows:—

ELEMENTARY

From the beginning the student is taught to draw from the object. Models are provided with simple contours such as casts from leaves, fruit, foliage, Greek vases, architectural forms, fragments of the human figure, etc., and the student is required to make outline and shaded drawings from these until he has fully mastered the difficulties due to the form and position of the object. This method is carried through all grades of the school; no copying of any kind is permitted.

ANTIQUE.

In the Antique Class the methods in use are severe and require close observation, combined with great patience and perseverance. All stump processes are discarded; all results are due to careful study and pains-

taking; no chance is allowed for "accidental effects." The education of the eye is considered of greater importance than the training of the hand, not only in simple line work and the study of superficial forms, but in the general, yet no less certain, laws which underlie and distinguish the work of every great master in sculpture or painting. Little attention is paid to pictorial finish, and in many cases where a tendency toward pictorial finish seems to interfere with the student's progress in acquiring a comprehensive method of drawing, it is rigorously discouraged.

LIFE.

Work in the Life Classes consists in drawing and painting from the living model, both draped and nude, and either from a whole or a portion of the figure, one class being entirely devoted to the study of the head. More attention is given to drawing than to painting, and students who paint are required to draw a portion of the time. In all cases a careful study of the model and conscientious search for contours and construction, requiring continual use of the mind, are insisted upon. No effort is made to bring the students to a uniformity of method; except to the extent of instructing them to see forms as they really exist; beyond this each student is permitted to develop or follow a style of his own. Special attention is given to the importance of viewing the subject to be placed upon the paper as a whole, thus bringing the parts of the figure into proper subordination and avoiding the natural tendency to exaggerate the importance of details. Special emphasis is placed on the importance of self-reliance in the determination of the form of each portion

of the figure, and of bestowing as conscientious care upon the modeling of the hand and foot as upon the expression of the face, with the purpose of training the eye to comprehend and the hand to reproduce precisely what is seen and not what may be known to exist from a general knowledge of the subject or from any preconceived ideas of whatever kind. This method is carried to the smallest details with the intention of compelling the student to rely entirely on the natural form which is before him.

MECHANICAL AND ARCHITECTURAL DRAWING.

Classes in these subjects are only held at night. Owing to the variety of knowledge and ability possessed by the student, the instruction is largely individual.

Mechanical Drawing includes the following branches:—

- I. Plane Geometrical Drawing, Orthographic Projection, Intersection of Solids and Development of Surfaces.
- II. Drawing of Machine Details from measurement.
- III. The making of Assembled Drawings.
- IV. Tracing.

The purpose of the instruction is to teach students how to make practical working drawings, and to read them with ease.

In the Architectural Drawing Class beginners are taught how to use their instruments, and to make neat and accurate line drawings. Instruction is given in the preparation of plans, elevations and working drawings for various kinds of buildings. Advanced students are

taught Perspective Drawing, and the drawing of ornamental forms for decorative purposes.

MODELING.

The work of modeling in the day class of the school is intended principally to supplement the work in drawing and painting, for the purpose of giving students a more detailed knowledge of the form and structure of the models which they have studied in their work in drawing. In the night class the work is quite different. Most of the students are artisans who desire to acquire a knowledge of modeling for specific purposes, principally for use in exterior decoration and in architectural work. On account of this difference the work in the day class is of a more general character, and intended more to cultivate the mind, while that of the night class is necessarily special in character, and intended more particularly to give the hand skill in producing well-known forms.

LECTURES.

From time to time class and public lectures are given on subjects pertaining to art history and on other allied subjects, which it is thought may be for the benefit of the students. These lectures are arranged, not only for the purpose of instructing the student by the matter directly presented, but to awaken a desire for information on a variety of subjects, literary and historical as well as artistic, and to suggest a proper course of reading for the prosecution of any line of study which individual taste may prefer. Some are purely technical and deal

with the various methods employed at different periods while others are informal and conversational. All are intended to give the student the latest and best information on the subjects treated, and wherever possible are illustrated either by models and objects or stereopticon views.

All lectures are given by specialists; the general subjects treated are history, literature, philosophy, anatomy, perspective, decorative design.

During the year 1895-96, the following lectures were given: —

January 31.

Historical Development of Swedish Art — C. F. von Saltza.

February 18.

Tendencies in Art — Prof. H. C. Ives.

February 22.

Tendencies in Modern Art — T. C. Steele.

April 21.

Russia's Literary and Intellectual Development — Prince S. Wolkonsky.

April 22.

Russia's Literary and Intellectual Development — Prince S. Wolkonsky.

April 23.

Russia's Literary and Intellectual Development — Prince S. Wolkonsky.

Twelve Lectures on Perspective — Mr. Holmes Smith.

COLLECTIONS.

The Museum of the school contains a carefully selected collection of about five hundred casts from antique and mediæval sculpture, and several marbles and works in bronze; also collections of examples of art work in porcelain, glass, metal and wood (originals and reproductions), and of fistic ivories and laces.

The Picture Galleries contain a collection of paintings, rare engravings and etchings. Examples are added, when possible, with a view to affording the student the best possible opportunity for pursuing the study of art history by such subjects.

Students are free to visit the galleries of the Museum at all times when open. Every possible advantage will be afforded them for work.

The collections for the use of students comprise: Several hundred autotype reproductions, from sketches, studies and paintings by celebrated masters from the fifteenth century to the present time; a set of carbon prints (numbering 1,041) illustrating the historical development of art made from various collections of the British Museum. The latter is divided into six parts: I. Prehistoric and Ethnographical Series; II. Egyptian Series; III. Assyrian Series; IV. Græcian Series; V. Etruscan and Roman Series; VI. Mediæval Series.

A Reference Library is being formed for the use of students. More than five hundred volumes have already been purchased or given for this purpose.

The reading room is open daily from 9 a. m. to 5 o'clock p. m. and on such evenings of the week as the work of the school may demand. The current art publications and monthly publications of current literature are on file.

It is the intention of the authorities of the school to add books of reference as rapidly as possible to those already acquired.

The Awards in the School of Fine Arts for the year 1895-96 were as follows:—

Miss Hattie Clark, having taken the Prize in the Modeling Class (life) and Mr. George C. Aid, having taken the Prize in the Sketch Class (in black and white), do not compete for these prizes this year.

1. For the most satisfactory progress in all classes,
The Wayman Crow Medal **MISS BERTHA HUNTER.**
2. For the best work in Life Classes (in color) from nude and draped models,
Gold Medal **RICHARD E. MILLER.**
3. For the best work in the Modeling Class (from life),
Silver Medal **MISS ESTELLE RUMBOLD.**
4. For best work in Modeling Class (from the Antique),
Bronze Medal **MISS FLORENCE SHARMAN.**
5. For best work in Life Class (in black and white),
Bronze Medal **MISS CORA TIMKEN.**
For excellent work in Life Class (in black and white),
Honorable Mention **ROBERT A. KISSACK.**
6. For second best work in the Head Class (in color),
Bronze Medal **MISS CLARA WEISMAN.**
For excellent work in the Head Class (in color),
Honorable Mention **ROBERT A. KISSACK.**
7. For best work in the Head Class (in black and white),
Honorable Mention **GEORGE A. HARKER.**
8. For best work in Saturday Sketch Class (in black and white),
Book Prize **J. OLIVER SPURR.**
For excellent work in Saturday Sketch Class (in black and white),
Honorable Mention { **GEORGE A. HARKER and**
MISS IRMA VON STARKLOFF.
9. For the best work in the Antique Class,
Silver Medal **MISS EULABEE DIX.**

10. For second best work in the Antique Class,
Bronze Medal MISS IRMA VON STARKLOFF.
- For excellent work in the Antique Class,
Honorable Mention J. OLIVER SPURR.
11. For the best work in the Still Life Class,
Silver Medal MISS ELEANOR LIPPINCOTT
12. For the second best work in the Still Life Class,
Bronze Medal MISS LAURA MENNE.
- For excellent work in the Still Life Class,
Honorable Mention MISS LUCY MATTHEWS.
13. For the best work done in the Architectural Class,
Bronze Medal M. H. FEURBRINGER.

THE ST. LOUIS MUSEUM OF FINE ARTS.

The Museum of Fine Arts has a valuable permanent collection of statuary, paintings, pottery, carvings, etc., which affords the public, as well as students, an indispensable aid to the study of art. And in order that opportunity may be given for studying the methods of the different schools of painting and the works of celebrated artists, arrangements have been made for a series of fine exhibitions of oil and water color paintings, architectural drawings and engravings.

Any one desiring to become a member of the Museum of Fine Arts may do so by the annual payment of \$10.00. This membership entitles him, with his family and non-resident guests, to the privilege of visiting the Museum at all times when open to the public, and to all lectures, receptions, and special exhibitions given under the auspices of the Board of Control.

SCHOOL OF FINE ARTS.

Students enrolled from date of issue of last catalogue,
February 14, 1896, to February 1, 1897.

FULL TIME STUDENTS.

NAME.	RESIDENCE.
Adrian, James Weaver	3226 Lucas av.
Aid, Geo. Chas.	1715 Carroll st.
Armstrong, Minnie W.	Edina, Mo.
Bancroft, Luella H.	Lindell Hotel.
Beach, Alice Mary	4464 Labadie av.
Boswell, Georgette L.	4117 McPherson av.
Bosworth, Frank Edward	753 Aubert av.
Bottom, Julia Maude	Sparta, Ill.
Boyer, Evelin	Easton, Mo.
Bruno, Frida	6804 Minnesota av.
Chopin, Lelia	3317 Morgan st.
Cunningham, Alice	Springfield, Mo.
Cushman, Guy	603 Garrison av.
Dale, Rhetta	Verseilles, Mo.
Dewey, Maud	3009 Pine st.
Dilks, Morton	1819 Franklin av.
Dix, Eulabee	3117 Washington av.
Duttlinger, Gertrud	4228 Castleman av.
Eichholz, Fredk. August	3311 N. 19th st.
Evans, Lela	2932 Lucas av.
Federer, Chas. Alfred	908 Russell av.
Filley, Louise	4416 Lindell av.
Fitch, Evelyn	4933 Reber pl.
Franklin, Ethel Chandler	Kirkwood, Mo.
Goodrich, Ella H.	3663 Blain av.

NAME.	RESIDENCE.
Gordon, Elizabeth	3913 Westminster pl.
Gross, Emilie Mary	Webster Groves, Mo.
Gruner, Louis Fred.	10 Nicholson pl.
Harker, Geo. Albert	2940 Laclede av.
Hazard, Grace	Kirkwood, Mo.
Hirst, Sue Gertrude	2223 S. Jefferson av.
Hunter, Bertha Edna	3663 Blain av.
James, Ray Fitz	1426 Lucas pl.
Jameson, Marie Louise	5 Benton pl.
Johns, Chas. Fred	3958 Cook av.
Jones, Charlotte Thorntou	Kirkwood, Mo.
Jones, Isabel Claire	3843 Olive st.
Kissack, Robert Ashton	3023 Chestnut st.
Kuhn, Estella	1110 N. 19th st.
Learned, Hariat P.	10 Benton pl.
Lionberger, John Robert	Boonville, Ill.
Lippincott, Eleanor Edwards	Webster Groves, Mo.
Lowell, James H., Jr.	2929 Washington av.
Luyties, Gerda Edna	2100 Lafayette av.
Malin, Belle Augusta	3634 Russell av.
Massey, Grace	3513 Morgan st.
Matthews, Lucy	5447 Cabanne pl.
Mattick, Malcolm Otto	1819 Lafayette av.
McGaughy, May	Pine Bluff, Ark.
Menne, Laura Estelle	4387 West Pine st.
Meston, Nan van R.	4051 Olive st.
Metcalfe, Alice Walker	Webster Groves, Mo.
Murphy, Martha Alice	Forest Pk. University.
Pattison, Alice M. G.	4254 Olive st.
Pfeifer, Clara M.	2917 Henrietta st.
Provenchere, Genevieve	4472 Maryland av.
Remmers, Louis John	3049 Sheridan av.
Rue, Tom	{ 1117 Chemvert, Houston, Tex.
Scales, Nancy Logan	1443 Dodier st.
Schaper, Elfrida	2726 Dayton st.

NAME.	RESIDENCE.
Schroeder, Walter Rolland	3101 Rauschenbach av.
Scroggs, Helen Elizabeth Marr	Lenox, Ia.
Shank, Lotta	Wichita, Kan.
Sharman, Florence	2124 S. Compton av.
Siboni, Emma	2149 S. Jefferson av.
Souther, Mary Lizzie	4329 West Belle pl.
Spencer, Anna	2725 Washington av.
Spurr, J. Oliver	2130 John av.
Starkloff, Irma Louise von	3148 Longfellow boul.
Stephens, Lula Pearl	Macon, Mo.
Stix, Alma	3135 Washington av.
Stoecker, Martha J.	1319 Lami st.
Sullivan, Ella Mary	3228 Pine st.
Tapp, Fanny	Louisville, Ky.
Timken, Cora	2933 Eads av.
Walsh, Joseph Paul	4362 Cook av.
Warren, Madge	3512 Washington av.
White, Edna	Jefferson Barracks.
Wiesman, Clara	Effingham, Ill.
Wilson, Lena	Columbia, Mo.
Students working full time	80
Students working part time	72
Students working in Night Classes	122
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Total number enrolled	274

ST. LOUIS LAW SCHOOL.

(LAW DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR 1896-97.

LAW SCHOOL opens Thursday, September 24th, 1896.

HOLIDAY, THANKSGIVING DAY, Thursday, November 26th, 1896.

VACATION, December 24th, 1896, to January 4, 1897, inclusive.

HOLIDAY, WASHINGTON'S BIRTHDAY, Monday, February 22, 1897.

UNIVERSITY HOLIDAY, Friday, May 14, 1897.

COMMENCEMENT, Thursday evening, June 17, 1897.

VACATION, from June 17 to Thursday, September 23, 1897.

EXAMINATIONS FOR ENTRANCE TO SENIOR CLASS, Tuesday, September 21, 1897.

LAW SCHOOL opens Thursday, September 23, 1897.

HOLIDAY, THANKSGIVING DAY, Thursday, November 25, 1898.

VACATION, from December 24, 1897, to January 2, 1898, inclusive.

LAW SCHOOL.

FACULTY.

**WINFIELD S. CHAPLIN, LL.D.,
CHANCELLOR OF WASHINGTON UNIVERSITY.**

**WILLIAM S. CURTIS, LL.B.,
DEAN OF THE LAW FACULTY.**

**ROBERT E. ROMBAUER (PRESIDING JUSTICE ST. LOUIS
COURT OF APPEALS),
PROFESSOR, REAL PROPERTY LAW AND EQUITY.**

**AMOS M. THAYER, LL.D. (JUDGE OF U. S. CIRCUIT COURT
OF APPEALS),
PROFESSOR, LAW OF CONTRACTS AND COMMERCIAL LAW.**

**GUSTAVUS A. FINKELBURG, A. B.,
LECTURER, CONSTITUTIONAL LIMITATIONS.**

**CHAS. P. JOHNSON, A. M.,
LECTURER, CRIMINAL LAW.**

**FREDERICK N. JUDSON, LL.D.,
LECTURER, CONSTITUTIONAL LAW.**

CHAS. NAGEL, LL.B.,
LECTURER, CORPORATIONS.

JAMES O. BROADHEAD, LL.D.,
LECTURER, INTERNATIONAL LAW.

EDWARD C. ELIOT, LL.B.,
LECTURER, SALES AND BAILMENTS.

F. A. WISLIZENUS, LL.B.,
LECTURER, ADMINISTRATION.

I. H. LIONBERGER, A. M.,
LECTURER, STATUTE OF LIMITATIONS AND STATUTE OF FRAUDS.

PAUL F. COSTE, LL.B.,
LECTURER, AGENCY.

PENDLETON TAYLOR BRYAN, LL.B.,
LECTURER, TORTS AND NEGLIGENCE.

JACOB KLEIN, LL.B. (JUDGE OF ST. LOUIS CIRCUIT COURT),
LECTURER, ADVANCED CLASS.

LEE SALE, LL.B.,
LECTURER, PARTNERSHIP.

C. O. BISHOP, LL.B.,
LECTURER, CRIMINAL LAW.

EDWARD S. ROBERT, LL.B.,
LECTURER, EVIDENCE.

EDWARD P. PERRY,
INSTRUCTOR IN ELOCUTION.

ADVISORY AND EXAMINING BOARD.

DAVID J. BREWER, Justice of U. S. Supreme Court.

SAMUEL TREAT, LL.D., U. S. District Judge (retired).

SHEPARD BARCLAY, Justice of the Supreme Court of Missouri.

WARWICK HOUGH, late Justice of the Supreme Court of Missouri.

SEYMOUR D. THOMPSON, late Judge of St. Louis Court of Appeals.

WILLIAM H. BIGGS, Judge of St. Louis Court of Appeals.

HENRY W. BOND, " " " " "

R. A. BAKEWELL, late Judge of St. Louis Court of Appeals.

DANIEL DILLON, Judge of St. Louis Circuit Court.

LEROY B. VALLIANT, Judge of St. Louis Circuit Court.

JACOB KLEIN, " " " " "

JAMES E. WITHROW, " " " " "

DANIEL D. FISHER, " " " " "

J. GABRIEL WOERNER, late Judge of St. Louis Probate Court.

ELMER B. ADAMS, Judge of U. S. District Court.

WILBUR F. BOYLE, late Judge of St. Louis Circuit Court.

GEORGE W. LUBKE, " " " " "

JAMES A. SEDDON, " " " " "

JOHN W. NOBLE, Ex-Secretary of the Interior.

HENRY S. PRIEST, late U. S. District Judge.

EDWARD C. KEHR,	TRUMAN A. POST,
ARBA N. CRANE,	HUGO MUENCH,
JAMES TAUSSIG,	ELENEIOUS SMITH,
JOHN W. DRYDEN,	JAMES P. DAWSON,
EDWARD CUNNINGHAM, JR.,	DAVID GOLDSMITH,
GEORGE H. SHIELDS,	JOHN A. HARRISON,
JOHN P. ELLIS,	CHARLES S. TAUSSIG,
CHARLES CLAFLIN ALLEN,	GARLAND POLLARD,
JOHN M. HOLMES,	WELLS H. BLODGETT,
HENRY A. KENT,	E. T. ALLEN.
JAMES P. MAGINN,	JOHN F. LEE,
LEVERETT BELL,	HORATIO D. WOOD,
EDWARD T. FARISH,	JOHN D. DAVIS,
EVERETT W. PATTISON,	JAMES L. BLAIR,
JOHN E. McKEIGHAN,	WILLIAM B. HOMER,
SILAS B. JONES.	Of the St. Louis Bar.

COMMITTEES OF EXAMINATION.

FOR THE YEAR 1896.

For the Examination of Candidates for Graduation.

LEROY B. VALLIANT,
ARBA N. CRANE,
JOHN F. LEE,
HORATIO D. WOOD,
JOHN D. DAVIS,
JAMES L. BLAIR,
WILLIAM B. HOMER,
of the St. Louis Bar.

For the Award of a Prize of Fifty Dollars for the best Graduation Thesis.

JOHN P. ELLIS,
CHARLES W. BATES,
CLIFFORD B. ALLEN,
of the St. Louis Bar.

HONORS, 1896.

PRIZE ESSAYIST,
DAISY D. BARBEE.

The Juniors who passed all the Junior examinations with an average grade of more than eighty (80) per cent, and are therefore entitled to enter the Senior class *cum laude* are:—

- ARTHUR BEHN SHEPLEY, St. Louis, Mo., 93.52.
WILLIAM H. JOHNSON, St. Louis, Mo., 93.15.
ANTHONY F. ITTNER, St. Louis, Mo., 89.50.
LUTHER ELY SMITH, St. Louis, Mo., 88.04.
HENRY HIGGINBOTHAM, Kirkwood, Mo., 87.18.
WILBUR B. SPAULDING, St. Louis, Mo., 86.61.
RANDOLPH H. LAUGHLIN, St. Louis, Mo., 86.21.
HENRY A. BAKER, Union Hill, N. Y., 85.97.
PAUL REISS, St. Louis, Mo., 85.90.
JAMES O. WATSON, Indianola, Ia., 85.24.
THOMAS H. COBBS, Marshall, Mo., 85.20.
JOHN F. CARSON, Sparta, Ill., 84.62.
CONDÉ M. NAST, St. Louis, Mo., 84.23.
JOHN B. RENO, St. Louis, Mo., 83.88.
WILLIAM G. CARTER, King City, Mo., 83.61.
DANIEL C. MILLER, St. Louis, Mo., 83.27.
FREDERICK A. FREARK, Alton, Ill., 82.95
FREDERICK M. EDWARDS, Delhi, Ill., 82.20.
EDWARD E. PARAMORE, St. Louis, Mo., 80.90.
ALFRED W. KNOTTS, Lucas, Ia., 80.78.
WILLIAM A. V. GARESCHÉ, St. Louis, Mo., 80.62.
JOHN S. BOYER, Easton, Mo., 80.53.
ROBERT S. HARBISON, St. Louis, Mo., 80.08.

ADVANCED CLASS.

	RESIDENCE.
Daly, Charles J. (LL.B., 1896, Washington University)	8502 Laclede av.
Johnson, Andrew	417 Pine st.
Lopez, George (LL.B., 1896, Washington University)	3748 Westmiuster pl.
Rassieur, Leo S. (LL.B., 1891, Washington University)	404 Market st.
Schery, William R. (LL.B., 1896, Washington University)	41 DeMenil bldg.
Senn, George W. (LL.B., 1895, Washington University)	406 Market st

SENIOR CLASS.

Auer, Reno Alphonso (A. B., 1894, St. Louis University), St. Louis, Mo.	2712 S. Grand av.
Austin, James Brewster, Jr., St. Louis, Mo.	7039 Horner av.
Baker, Henry A. (A. B., 1895, Yale University), Union Hill, N. Y.	2910 Pine st.
Barbee, Peyton Elias, St. Louis, Mo.	2821 Stoddard av.
Bennett, Ernest S., Lee Summit, Mo.	1417 Locust st.
Bland, Thomas Leland (A. B., 1895, Kentucky University), Vandalia, Mo.	3406 Franklin av.
Bond, Lee, Leavenworth, Kan.	3015 Bell av.
Boughton, Daniel Hall (1881, U. S. Military Academy), Jefferson Barracks, Mo.	
Boyer, John Siduey (B. L., 1895, University of Mo.), Easton, Mo.	2007 Olive st.
Bryson, M. Dee, Paris, Texas	1417 Locust st.
Burleigh, George P. (A. B., 1894, St. Louis University), St. Louis, Mo.	3033 Morgan st.

RESIDENCE.

Carson, John Fulton, Sparta, Ill.	. . . . .	3221 Pine st.
Carter, William Gordon, King City, Mo.	. . . . .	2007 Olive st.
Chappell, Edwin Rutherford, St. Louis, Mo.	. . . . .	3811 Westminster pl.
Clark, Crittenden, St. Louis, Mo.	. . . . .	2944 Manchester av.
Clarke, Owen J. (A. B., 1895, St. Louis University), St. Louis, Mo.	. . . . .	3133 Eads av.
Edwards, Frederick M., Delhi, Ill.	. . . . .	1417 Locust st.
Engel, Albert H., St. Louis, Mo.	. . . . .	3424 Clark av.
Everett, John Groves (A. B., 1895, Hamilton College), St. Louis, Mo.	. . . . .	4823 Fountain av.
Farrington, John Lebree, Fayette, Mo.	. . . . .	2918 Pine st.
Goodman, Louis DeWitt, St. Louis, Mo.	. . . . .	908 Chouteau av.
Hamel, Harry W., DeSoto, Mo.	. . . . .	923 Chouteau av.
Harbison, Robert S., St. Louis, Mo.	. . . . .	7019 S. Broadway.
Higginbotham, Henry, Kirkwood, Mo.	. . . . .
Hilkerbaumer, William, St. Louis, Mo.	. . . . .	4316 N. 20th st.
Ittner, Anthony Francis (A. B., 1895, Washington University), St. Louis, Mo.	. . . . .	2603 Michigan av.
Johnston, William Hartshorne (1887, U. S. Infantry Cavalry School), St. Louis, Mo.	. . . . .	3571 Lindell av.
Koehler, Max, St. Louis, Mo.	. . . . .	22 Nicholson pl.
Laughlin, Randolph Houston, St. Louis, Mo.	. . . . .	4426 Lindell boul.
Long, Will Z. (A. M., 1890, La Grange College), St. Louis, Mo.	. . . . .	3101 Washington av.
Linn, Paul H. (A. M., 1895, Central Col- lege), Monroe City, Mo.	. . . . .	2631 Locust st.
McDonald, Robert S., Jr., St. Louis, Mo.	. . . . .	707 N. Leffingwell av.
Marsh, Joseph V. E., Upper Alton, Ill.	. . . . .
Miller, Daniel C., St. Louis, Mo.	. . . . .	4422 W. Belle pl.
Miller, Henry F., Philadelphia, Pa.	. . . . .	2921 Pine st.
Mortland, Samuel G., St. Louis, Mo.	. . . . .	3005 Eads av.
Muench, Julius Thamer, St. Louis, Mo.	. . . . .	3117 Longfellow boul.

RESIDENCE.

Munson, Edwards Clarence, Clinton, Mo.	3226 Pine st.
Nast, Condé Montrose (A. B., 1894, Georgetown University), St. Louis, Mo.	3642 Lindell av.
North, Flavius J. (A. M., 1895, Central College), Labadie, Mo.	4122 Delmar av.
O'Bryen, Enoch M., Shelbyville, Mo.	2631 Locust st.
Parker, Luman F., St. Louis, Mo.	4358 Morgan st.
Patterson, Roscoe Conkling, Springfield, Mo.	1608 Locust st.
Reiss, Paul, St. Louis, Mo.	1907 Lami st.
Reno, John B. (A. B., 1895, St. Louis University), St. Louis, Mo.	2826 S. 2d st.
Shepley, Arthur Behn (A. B., 1895, Yale University), St. Louis, Mo.	50 Vandeventer pl.
Sheridan, William P., St. Louis, Mo.	2358 Mullanphy st.
Smith, Luther Ely (A. B., 1894, Amherst College), St. Louis, Mo.	2910 Pine st.
Stone, Royal Augustus, Morris, Minn.	2806 Locust st.
Townley, G. Frank, St. Louis, Mo.	4306 Cook av.
Valier, Louis A., St. Louis, Mo.	4362 Washington boul.
Van Patten, John Lane, St. Louis, Mo.	1610 Locust st.
Walker, George Herbert, St. Louis, Mo.	53 Vandeventer pl.
Ward, Clarence C., St. Louis, Mo.	.
Warren, Thomas A., Seymour, Mo.	3302 Morgan st.
Williams, George Howard (A. B., 1894, Princeton University), California, Mo.	3338 Lucas av.
Wolfsberger, E. Henry, Rock Hill, Mo.	.
Young, Jared Wilson (A. B., 1894, Northwestern University), St. Louis, Mo.	1505 Locust st.

JUNIOR CLASS.

Albright, Adolph C., St. Louis, Mo.	. . . 710 Olive st.
Anderson, Thomas Lilbourne (A. B., 1896, Central College), Louisville, Mo.	2631 Locust st.

RESIDENCE.

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| Babbitt, Byron Fenner, St. Louis, Mo. | . . . | 3638 Pine st. |
| Barker, Horace H., St. Louis, Mo. | . . . | 3939 Castleman av. |
| Barrett, Peter T., St. Louis, Mo. | . . . | 3507 Manchester av. |
| Beall, Burns W., St. Louis, Mo. | . . . | 5735 Bartner av. |
| Bickley, Edward Hart, St. Louis, Mo. | . . . | 5035 Minerva av. |
| Biggs, Davis, St. Louis, Mo. | . . . | 4434 Forest Park boul. |
| Birge, James Patrick, St. Louis, Mo. | . . . | 2949 Euclid av. |
| Blake, John Sheer, St. Louis, Mo. | . . . | 4413a Page av. |
| Bradley, George Edwin, St. Louis, Mo. | . . . | 3934 Washington av. |
| Brandenburger, William A., St. Louis,
Mo. | | 2848 Hickory st. |
| Brinkman, Ferdinand Carl, St. Louis,
Mo. | | 1033 S. 8th st. |
| Buder, Eugene, St. Louis, Mo. | . . . | 3321 Shenandoah av. |
| Bushnell, David Lois, Jr., St. Louis, Mo. | . . . | 3830 Delmar av. |
| Callans, John, Winchester, Ill. | . . . | 1627 Washington av. |
| Chipman, George Ernest (A. M. 1895,
Harvard University), Upper Alton, Ill. | | |
| Cordell, Robert V. M., St. Louis Mo. | . . | 2632 Locust st. |
| Dame, James Ebenezer (A. B., 1895,
Wabash College), Princeton, Ind. | . . | 1825 Olive st. |
| Dammert, Louis A., St. Louis, Mo. | . . . | 4166 Cleveland av. |
| Danforth, Henry Albert, Charleston, Mo. | . . . | 4068 West Belle pl. |
| Davis, Robert H., Piedmont, Mo. | . . . | 2609 Chestnut st. |
| Denvir, John B., Jr. (A. B., 1896, St. Louis
University), St. Louis, Mo. | | 3409 Pine st. |
| Dillon, John (A. M., 1896, Georgetown
University), St. Louis, Mo. | | 4309 Pine st. |
| Dockery, James D., St. Louis, Mo. | . . . | 3875 Delmar av. |
| Douglas, John H., Jr. (A. B., 1896,
Yale University), St. Louis, Mo. | . . . | 16 Vandeventer pl. |
| Dunn, Ballard, St. Louis, Mo. | | 2102 Clifton av. |
| Edwards, John Blair (B. P., 1896,
Brown University), Upper Alton, Ill. | . . . | 3026 Locust st. |
| Evans, Claude Thompson, Perry, Mo. | . . | 2007 Olive st. |
| Ewing, Harry W., Cleveland, Ohio | . . . | 305 S. 7th st. |

RESIDENCE.

Fahle, Henry John, St. Louis, Mo.	. . . . .	1521 Destrehan st.
Fenn, Bertrand Frederick, St. Louis, Mo.	. . . . .	2831 Eugenia st.
Franck, Charles Hugo, St. Louis, Mo.	. . . . .	2124 Oregon av.
Garesché, Edward F. (A. B., 1896, St.		
Louis University), St. Louis, Mo.	. . . . .	3752 Olive st.
Gauen, Albert, Waterloo, Ill.	. . . . .	2723 Dickson st.
Green, Leslie M., St. Joseph, Mo.	. . . . .	1518 Washington av.
Grier, Robert Cooper, St. Louis, Mo.	. . . . .	3126 Lucas av.
Guels, Walter C., St. Louis, Mo.	. . . . .	3336 Caroline st.
Haagen, Emil C., Alton, Ill.	. . . . .
Haberman, Phillip William, St. Louis,		
Mo.	. . . . .	3329 Chestnut st.
Haid, George F., St. Louis, Mo.	. . . . .	4738 Hammett pl.
Hall, Claude Dudley (Ph. B., 1896, De-		
Pauw University), Arcola, Ill.	. . . . .	1829 Olive st.
Hamilton, H. Alexander, St. Louis, Mo.	. . . . .	2329 St. Louis av.
Hannauer, Charles Edward, St. Louis,		
Mo.	. . . . .	2002 Victor st.
Harvey, Julian C., Kirkwood, Mo.	. . . . .
Hennings, Thomas C., St. Louis, Mo.	. . . . .	2618 Rutger st.
Hockdoerfer, Anthony, St. Louis, Mo.	. . . . .	305 Sidney st.
Hollmann, Frederick G., St. Louis, Mo.	Columbia bldg.	
Hunt, Dunbar, Jr., St. Louis, Mo.	. . . . .	3546 Washington av.
Kamp, Frederick W., St. Louis, Mo.	. . . . .	2249 University st.
Kelly, John J., St. Louis, Mo.	. . . . .	3535 Page av.
Kenna, Ernest M., St. Louis, Mo.	. . . . .	3956 W. Belle pl.
Kersting, Henry A., St. Louis, Mo.	. . . . .	1504 S. 11th st.
Kinder, Lyman T., Lutesville, Mo.	. . . . .	1520 Locust st.
Koerner, Keut K., Belleville, Ill.	. . . . .
Lackland, Edgar C., Jr. (A. B., 1896, Yale		
University), St. Louis, Mo.	. . . . .	3635 Laclede av.
Leland, E. James, St. Louis, Mo.	. . . . .	702 N. 4th st.
Lindsay, Benjamin C., St. Louis, Mo.	. . . . .	3138 Washington av.
Lloyd, Henry (M. D., 1890, St. Louis		
College of Physicians and Surgeons),		
St. Louis, Mo.	. . . . .	1835 N. 9th st.

RESIDENCE.

- Lord, John King, Jr. (A. B., 1895, Dartmouth College), St. Louis, Mo. . . . 4264 Delmar boul.
 Mabrey, Thomas W., Doniphan, Mo. . . 1204 Goodfellow av.
 Mahoney, Edward T., Alton, Ill. . . .
 Marbury, Benjamin H. (B. S., 1887, Bellevue Collegiate Institute), Caledonia, Mo. 1520 Locust st.
 Martin, Stephen A. (A. B., 1890, Christian Bros. College), St. Louis, Mo. . . 3510 Bell av.
 McClanahan, John, St. Louis, Mo. . . . 4377 Cook av.
 McMinn, Phocion M., St. Louis, Mo. . . 1630 S. Compton av.
 Merryman, Robert H. (B. S., 1896, Bethany College), St. Louis, Mo. 5936 W. Cabanne pl.
 Milligan, Cora D., St. Louis, Mo. . . . 2703a St. Vincent av.
 Muth, John B., St. Louis, Mo. 928 Manchester av.
 Noonan, Edward A., Jr., St. Louis, Mo. 1835 Madison st.
 Oberschelp, Henry H. (A. B., 1896, Washington University), St. Louis, Mo. 2550a St. Louis av.
 O'Donnell, Eugene, St. Louis, Mo. . . . 1912 Carr st.
 O'Hallaron, Anthony A., St. Louis, Mo. 1811 Ohio av.
 O'Reilly, Matthew P. (A. B., 1896, Christian Bros. College), St. Louis, Mo. 917 Benton st.
 Percival, Leo C. (B. S., 1894, Central Normal College, Ia.), Hillsboro, Ia. . . 1721 Washington av.
 Ratz, Arthur J., Alexandria, Neb. . . . 3013 Bell av.
 Robert, Douglas W., St. Louis, Mo. . . 2922 Washington av.
 Robbins, Alexander H., St. Louis, Mo. . . 4465 Greer av.
 Rodgers, William L., St. Louis, Mo. . . 3023 Locust st.
 Rucker, John F., St. Louis, Mo. 2922 Dickson st.
 Ryan, Dennis A., St. Louis, Mo. 2513 Mullanphy st.
 Schnake, Robert A., St. Louis, Mo. 2943 Easton av.
 Schneider, Christopher R., St. Louis, Mo. 1450 N. 7th st.
 Schroeder, William H., St. Louis, Mo. . . 1802 California av.
 Shane, Milton L., Pablo Beach, Fla. . . 5 S. 22d st.

RESIDENCE.

Shaw, Chauncey C., St. Louis, Mo. . . . 4035 Olive st.
 Smith, Griswold (A. B., 1896, Yale Uni-
 versity), St. Louis, Mo. 2621 Locust st.
 Smith, James W. (M. D., 1890, Missouri
 Medical College), St. Louis, Mo. . . . 2801 Washington av.
 Spaulding, Wilbur B. (A. M., 1881, Iowa
 Wesleyan University), St. Louis, Mo. 714 Leonard av.
 Sprague, Harry E., St. Louis, Mo. . . . 3956 Delmar av.
 Stallings, Thomas, Alhambra, Ill. . . . 1627 Washington av.
 Steinkamp, William D., St. Louis, Mo. 65 E. Grand av.
 Thatcher, Charles W., St. Louis, Mo. . . 5060 Morgan st.
 Thompson, Ford W. (A. B., 1895, Yale
 University), St. Louis, Mo. 3803 Westminster pl.
 Tyrrell, Morton H., St. Louis, Mo. . . . 3869 Windsor pl.
 Wade, Frank E. (A. B., 1896, Yale Uni-
 versity), Springfield, Mo. 1510 Washington av.
 Walker, Harry H., St. Louis, Mo. . . . 2932 Dickson st.
 Walsh, Edward P., St. Louis, Mo. . . . 3526 Laclede av.
 Wehrenbrecht, William, St. Louis, Mo. Clark & Compton avs.
 Wright, Collin L., St. Louis, Mo. . . . 1202 Monroe st.
 Zeller, George A., Jr., St. Louis, Mo. . 4472 West Belle pl.

Advanced Class	6
Senior Class	58
Junior Class	101
Total,	165

HISTORICAL AND DESCRIPTIVE.

The Law School was founded in the year 1867 by the united efforts and counsels of the Directors of Washington University and of members of the profession actually in practice or then on the bench in the city of St. Louis. Feeling the importance of more thorough education in the Law than is usually required as a condition for admittance to the bar, they resolved to found a school which should give the best and most complete course of legal study possible within two years, and should be so conducted as to make its diploma an indisputable proof of the attainment of a high and uniform standard, without reference to numbers or to the support of the school from tuition fees. With that end in view the organization was adopted which has ever since been maintained. The University adopted the school as one of its departments, appointed the Dean and Faculty, and has always provided for its maintenance and has granted its degrees to the graduates. But the oversight of the course of study and the examination of candidates for such degrees were committed to an Advisory and Examining Board, composed of Judges of Federal and State Courts and members of the St. Louis Bar, distinguished for their talents and general and legal erudition, by whose committees those examinations are always conducted, and whose award is conclusive. These committees prepare the questions upon each topic, and pass upon the candidates' answers, under a system which secures the

absolute impartiality of the result; the papers being distinguished by numbers only, and the name of the candidate represented by each number being unknown to the examiner. The papers of a candidate must reach the fixed standard of merit required by the committee or he will fail to pass, without even his name being known to them. Those who reach that standard are recommended to the University Directors for the degree of Bachelor of Laws (which is by law an admission to the bar).

In consequence of this organization the school is known alike as the Law Department of Washington University, and as the St. Louis Law School. First opened to students September 16, 1867, it has now been in successful and unbroken operation for twenty-nine years. In the city of St. Louis, during nine months in the year, besides the ordinary municipal and inferior courts, there are in almost uninterrupted session the Appellate, Circuit and District Courts of the United States, taking cognizance of questions in Admiralty and Revenue Law, as well as of causes at Common Law and Equity; also the Circuit and Criminal Courts of the State, and the St. Louis Court of Appeals—in one or other of which are constantly illustrated the learning and practice of every department of American jurisprudence.

ENDOWMENT AND EDIFICE.

To insure the perpetual maintenance of its course, by the generous public spirit of a few friends, an endowment now amounting to *seventy-seven thousand dollars* has been given, and invested in good securities in the name of Washington University, in trust for the per-

petual support of the Law Department; the interest of such fund to be used for that purpose. It is hoped that this fund will be enlarged by other gifts.

The Directors of Washington University have formally dedicated to the use of the Law Department, rent free, forever, the building now occupied by the Law School. This is a large and commodious building of three stories, No. 1417 Lucas Place, standing upon its own grounds, with a frontage of *one hundred feet* upon Lucas Place, the most convenient location in the city for such an institution. All the lecture and recitation rooms of the various classes, the libraries, Dean's office, society rooms, etc., are concentrated in this building, and the best accommodations for students may be found in the part of the city surrounding it. The principal library room is 58 by 60 feet in size and is open every day and evening for the use of students, many of whom spend all their study hours here. Considerable additions have been made to the Library, which now contains more than 7,000 bound volumes. The Library *belongs to the school* and is devoted exclusively to the use of the students. By the courtesy of the Law Library Association they have also access on Saturdays to the Bar Library at the Court House, containing a very complete collection of American, British, Scotch, Irish, and Colonial Reports and treatises. Rooms are also fitted up as reading and conversation rooms for students.

ADMISSION.

Applicants for admission to the school will be expected to furnish satisfactory evidence of good character and of

at least a good English education. The diploma of any reputable college, academy or high school will be received as evidence of the latter; or the applicant may pass an examination to test his ability to read law-books intelligently.

No fixed rule as to the age of applicants for admission is enforced, but the Faculty reserve the right to reject any student not old enough to begin the study of law with advantage; and no student will receive the degree of Bachelor of Laws before the completion of his twenty-first year.

Candidates for the Senior Class will also be required to pass examination on the studies of Junior year. To those who have previously been members of the Junior Class, the examinations of that year will suffice, if creditably passed; and those who failed to pass, may, upon further study, apply again for examination in September, provided their record is not too unsatisfactory. The regular examination for this purpose will be held on Tuesday, Sept. 21st, 1897, at 9 A. M., at the Law School, 1417 Lucas Place; and new applicants for admission as Seniors are requested to attend it, if possible, so as to begin the year's work with the class. Students of both classes are advised for their own advantage to enter on the first day of the course, or as soon thereafter as possible.

Admission to the Junior Class may be had at any time during the year; to the Senior Class, after the examination in September, it will be granted only upon special examination, at a time fixed by the Dean upon application, not later than the first week of school after the Christmas holidays; and no person will be admitted a member of

the Senior Class as a candidate for a degree after that time; nor at any time upon any certificate of attainments, or previous study or attendance elsewhere.

But the privileges of the school will not be confined to those who are candidates for a degree, or wish to complete the entire course. Members of the bar of any State, who wish to study particular branches of law, will be admitted at any time for that purpose; and so also will students who can take but a partial course of study; or those who take the entire course without seeking a degree. The last mentioned class will be expected to pay full tuition; to the others reduction will be made according to the circumstances of each case, but not exceeding one-half the regular tuition fee for each term. Any person coming within either of the foregoing classes, and possessing the general qualifications mentioned above, may attend the lectures of either class upon being enrolled in such class, and engaging to comply with the current regulations of the Law School. Such enrollment will entitle him to the privileges of the Library, and to attend all lectures and other exercises in both classes but not to be examined for graduation, nor to compete for a prize essay or degree.

COURSE OF STUDY.

The course for the degree of LL.B. may still, as heretofore, be completed in two annual terms, each of which (excluding the recess of about ten days at Christmas) occupies more than eight months in continuous study, beginning on the fourth Wednesday of September of each year. The lectures are given at 8:45 to 9:45 A. M., and

at 5 to 6 P. M., with some additional lectures to the Junior class at 4 P. M.; and Moot Court is held Fridays, at 7:30 P. M.

JUNIOR CLASS.

ELEMENTARY LAW.	<i>Robinson and Blackstone.</i>	Thirty-five lectures.
CONTRACTS.	<i>Bishop.</i>	
COMMERCIAL PAPER.	<i>Norton</i>	} Sixty-two lectures. Thayer.
TORTS.	<i>Cooley.</i>	
NEGLIGENCE.	<i>Whitaker's Smith.</i>	} Sixty-two lectures. Bryan.
SALES.	<i>Benjamin.</i>	} Sixty-two lectures. Eliot.
BAILMENTS.	<i>Hale.</i>	
AGENCY.	<i>Mechem.</i>	Twenty lectures. Coste.
CRIMINAL LAW.	Twenty lectures.	Bishop. Johnson.
PLEADING.	{ Common Law. <i>McKelvey.</i>	} Thirty lectures.
	Code. <i>Bryant.</i>	Curtis.

SENIOR CLASS.

REAL PROPERTY.	<i>Tiedeman.</i>	Fifty lectures. Rombauer.
CORPORATIONS.	<i>Taylor.</i>	Thirty-one lectures. Nagel.
DOMESTIC RELATIONS.	<i>Schouler.</i>	Thirty lectures. Curtis.
EVIDENCE.	<i>Greenleaf.</i>	Thirty lectures. Robert.
STATUTES OF LIMITATIONS AND FRAUDS.	Ten lectures.	Lionberger.
ADMINISTRATION.	<i>Woerner.</i>	Twenty lectures. Wislizenus.
CONSTITUTIONAL LAW.	<i>Black.</i>	Fifteen lectures. Judson.
CONSTITUTIONAL LIMITATIONS.	Finkelnburg.	
JURISDICTION OF FEDERAL COURTS.	Ten lectures	Thayer.
INTERNATIONAL LAW.	Twenty lectures.	Broadhead.
PARTNERSHIP.	<i>Parsons.</i>	Fifteen lectures. Sale.
EQUITY.	<i>Bisham.</i>	Thirty lectures. Rombauer.
HISTORY OF THE COMMON LAW.	Thirty lectures.	Curtis.
MOOT COURT.	Once a week for both classes.	

The above courses are subject to slight changes from year to year.

ADVANCED CLASS.

An Advanced Course, on the Law of Extraordinary Legal Remedies, open to all graduates of this school and to members of the bar, is conducted during the school year, by Hon. Jacob Klein, Judge of the St. Louis Circuit Court. The class meets every Saturday at 4 p. m. Tuition for the school year, twenty dollars.

MOOT-COURT.

A Moot-Court is held weekly throughout seven months of the year. It is conducted, as nearly as possible, with the forms of an ordinary court of justice, and students are expected to draw pleadings in the cases assigned to them, and to conduct them through all the stages of a legal or equitable suit before trying the issues in the Moot-Court. Two members of the Senior Class may be appointed to sit as Associate Justices, and required to write opinions; the Dean deciding in case of a difference between them. The cases will be selected to illustrate the subjects studied by the classes and will be made so far as possible, means of instruction, not only in practice, but in the doctrines of the law. Both classes will be assigned to argue cases in these courts. The *Moot Court Record* is a weekly published by the School, containing the Statements of Facts, Briefs, and Opinions.

Opportunity will also be given for the organization of Club Courts among the students, with every facility for practice in the preparation and argument of cases, and for appeals from these to the Moot-Court, if desired.

ELOCUTION AND DEBATE.

The Moot-Courts and other exercises furnish an excellent means of improvement in public speaking, better adapted to the needs of the law student than declamation, or any other usual form of instruction in oratory. Those who desire it, will receive private advice and criticism upon the manner as well as matter of their exercises of this nature. Experience has shown that where there is natural aptitude for public speaking, students by this means alone can become ready and effective speakers during the two years of the course. But for the purpose of more thorough instruction in this branch of the professional work, and in the proper care, management and preservation of the voice, upon which so much of the value of the lawyer's work depends, exercises in elocution will hereafter form a part of the regular course, under the care of Mr. Edward P. Perry, Instructor in Elocution in Washington University, who will give each class an exercise of this kind weekly.

The expense of this instruction is defrayed by the School. Students who desire private lessons in addition to these will have an opportunity of obtaining them from the same teacher.

LIBRARY AND TEXT-BOOKS.

The Law Library, for the use of which no charge is made, consists of about 7,000 volumes, selected with great care, and including more than two hundred extra copies of the text-books in use.

The expense of text-books for the entire course, if purchased new and of the latest editions, is about \$75. This sum may be materially reduced by the purchase of second-hand books which may be usually had in considerable variety. All the books used in recitation may be found in the Library and can be studied there free of charge, but not taken from the room.

GRADUATION.

Applicants for the degree of LL.B. must have been members of the Senior Class for the required time, and must have attended with the prescribed regularity. They will deliver to the Dean on or before the fifteenth day of May an original thesis upon some legal subject approved by the Faculty. The subject of the thesis for the year 1896 was: "Rights and Remedies of a Beneficiary of a Trust, as against the Trustee and third Persons, in case of misappropriation of the Property held in Trust."

They must pass the examination prescribed by the Advisory and Examining Board, and conducted by a committee of that Board. This examination will be in writing, upon questions prescribed by the Committee, and answered under the supervision of the Faculty, without the use of books or any other assistance. It usually occupies an entire week, and is held early in June. As the degree of LL.B. conferred by this University entitles the holder to admission to the bar, it will not be granted except upon the most satisfactory evidence of actual proficiency, or to any person who will not have attained the age of twenty-one years on or before the first of October following, at the latest.

By the Revised Statutes of Missouri of 1889, § 624 (Vol. 1, p. 237), all who have completed this course and taken this degree are entitled to practice law in this State without further examination, upon taking the oath prescribed in the constitution and laws (§ 608, and Const., Art. XIV., § 6).

The above examination is upon all the subjects of the two years' course, and is in addition to the Faculty examinations held upon the individual subjects during the two years.

FEES AND EXPENSES.

The annual fee for attendance in either class is \$80, payable in advance. There are no extra charges of any kind, and the members of either class are free to attend all lectures and exercises of both; but no student can at the same time be a regular member of more than one class. No reduction will be made from the term fee, nor any part of it returned for absence from any cause.

Good board and lodging can readily be obtained in the city at from \$4 to \$5 per week. The expense may be lessened to students rooming together. The average price paid for board with rooms during the last two or three years by students in good houses near the Law School is believed to have been not over \$20 per month, while some have obtained it as low as \$15.

Those who find it necessary to earn a part of their living in other pursuits while taking the course can do so by lengthening that course from two to three years, taking a proportionate part of the class-work (to be designated by the Faculty according to circumstances of each case) in

each year. Every facility will be extended to them for such an arrangement; and the charge for tuition in such cases will only be for two years; but no other diminution of the daily requirements of attendance and study will be sanctioned, except in the case of special students not candidates for a degree.

OPPORTUNITIES FOR STUDY IN OTHER DEPARTMENTS OF THE UNIVERSITY.

Students paying full tuition in the Law Department may take special studies in the Undergraduate Department without additional charge for tuition, provided they are able to do so without interference or neglect of any part of the Law course. To avail themselves of this privilege, they must present for each course a written introduction from the Dean of the Law Faculty and must engage to attend such course punctually, and to conform to the same regulations with other students of that course.

SCHOLARSHIPS AND PRIZES.

In pursuance of the terms of a donation of \$6,000 heretofore made to the University for the benefit of the Law School, *six free scholarships* are established in this department; also an annual prize of \$50 in money for the best thesis upon some legal topic, to be publicly awarded at Commencement. Competition for this prize is confined to the regular members of the graduating class in each year under regulations duly announced.

Applicants for *free scholarships* should apply in person or by letter to the Dean, on or before the fifteenth

day of September, furnishing written testimonials of at least two responsible persons, that the pecuniary circumstances of the applicant are such as to make him deserving of this assistance, that he is of good character and standing, and that he has received a good English education at least. Other things being equal, preference will be shown to candidates who have received a collegiate education, and especially to those who have done this wholly or partially by their own efforts. Applicants not personally known to any of the Faculty will do well to state fully and precisely their age, place of birth and residence, present occupation, education (both general and legal), and any other circumstances that may be of weight in making a selection. Such communications will be held strictly confidential.

As the applicants for *free scholarships* are usually far in excess of the number that can be given, no student will hereafter have the benefit of such scholarship for more than one year. As far as practicable, the scholarships will be equally divided between the two classes — depending upon the number and success of the candidates for scholarship in either class.

Two members of each class have an opportunity to earn their tuition and a small salary in addition, by service as librarians, and in other capacities connected with the work of the School. Application for such positions must be made in person, on or before the fifteenth day of September.

For further information, inquiries may be addressed to WM. S. CURTIS, Law School Building, 1417 Lucas Place, St. Louis, Mo., or the Secretary of Washington University.

ST. LOUIS MEDICAL COLLEGE.

(MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1896-97.

SESSION OPENS Thursday, September 24.

CHRISTMAS VACATION, December 24 to January 4, inclusive.

COMMENCEMENT (Graduating Exercises), Thursday, April 29,

1897.

HOLIDAYS: Thursday of Fair Week, Thanksgiving Day, Washington's Birthday.

ST. LOUIS MEDICAL COLLEGE.

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*Professor of Clinical Medicine and Pathological Anatomy,
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* Deceased.

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JOHN B. SHAPLEIGH, M. D.,
Professor of Otology.

SIDNEY P. BUDGETT, M. D.,
Professor of Physiology and Histology.

* Deceased.

OTHER INSTRUCTORS.

***ELISHA H. GREGORY, M. D.,**
Instructor in Practical Anatomy.

ELSWORTH S. SMITH, M. D.,
Instructor in Physical Diagnosis.

AMAND N. RAVOLD, M. D.,
Lecturer on Hygiene, and Instructor in Bacteriology.

LEWIS L. McCABE, M. D.
Instructor in Clinical Medicine.

JULES F. VALLÉ, M. D.,
Instructor in Obstetrics.

***GREENFIELD SLUDER, M. D.,**
Clinical Lecturer on Diseases of the Nose, Throat and Chest.

EDWIN C. BURNETT, M. D.,
Lecturer on Syphilis.

VILRAY P. BLAIR, M. D.,
Instructor in Practical Anatomy.

CHARLES CLAFLIN ALLEN, LL.B.,
Lecturer on Medical Jurisprudence.

ARTHUR E. EWING, M. D.,
Lecturer on Diseases of the Eye.

ALBERT E. TAUSSIG, M. D.,
Instructor in Clinical Medicine and Urinology.

THEODOR KODIS, M. D.,
Lecturer and Demonstrator in Pathology, and Curator of the Museum.

* On leave of absence in Europe.

HENRY C. HARTMANN, M. D.,
Lecturer on Orthopædic Surgery.

JOSEPH MASERANG, JR., PH. G.,
Instructor in Materia Medica and Pharmacy.

LEWIS O. ATHERTON, B. S.,
Assistant in Chemistry.

STAFF OF THE O'FALLON DISPENSARY.

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Surgery.

PROFESSOR W. E. FISCHEL,
Medicine.

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Diseases of Children.

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Diseases of the Eye.

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Diseases of the Skin.

PROFESSOR J. B. SHAPLEIGH,
Diseases of the Ear.

DR. E. S. SMITH,
Physical Diagnosis.

DR. EDWIN C. BURNETT,
Syphilis.

DR. ARTHUR E. EWING,
Diseases of the Eye.

DR. HENRY C. HARTMANN,
Orthopædic Surgery.

DR. A. E. TAUSSIG,
Clinical Medicine.

DISPENSARY PHYSICIANS.

DR. E. S. SMITH, DR. H. FRUMSON,
DR. H. W. BEWIG, DR. A. E. TAUSSIG,
Medical Clinic.

DR. H. C. HARTMANN, DR. H. NIETERT,
Surgical Clinic.

DR. WILLIS HALL, DR. W. C. MARDORF,
Gynaecological Clinic.

DR. WILLIAM A. SHOEMAKER, DR. JOS. W. CHARLES,
Ophthalmic Clinic.

DR. E. C. BURNETT, DR. H. McC. JOHNSON,
Clinic for Diseases of the Genito-Urinary Organs, and Syphilis.

DR. G. S. MILLER, DR. G. M. TUTTLE,
Clinic for Diseases of Children.

DR. MALCOLM BLISS.*Clinic for Diseases of the Nervous System.*

DR. J. F. VALLÉ,

DR. J. M. SCOTT,

DR. WILLIS HALL,

DR. HENRY SCHWARZ,

DR. W. C. MARDORF,

DR. F. A. GLASGOW,

*Obstetrical Clinic.***DR. O. L. SAHLENDER,***In Charge Obstetrical Out-Clinic.***DR. CHAS. J. ORR,***Clinic for Diseases of the Throat.***DR. J. P. HOEFFER,***Clinic for Diseases of the Skin.***DR. A. F. KOETTER,***Clinic for Diseases of the Ear.***ST. LOUIS MULLANPHY HOSPITAL.****PROFESSOR E. H. GREGORY,***Surgeon in Chief.***CLINICAL LECTURERS.****PROFESSOR E. H. GREGORY,***Surgery.***PROFESSOR N. B. CARSON,***Surgery.***PROFESSOR PAUL Y. TUPPER,***Surgery.***DR. L. L. McCABE,***Medicine.*

WASHINGTON UNIVERSITY.

PROFESSOR J. P. BRYSON,
Genito-Urinary Surgery.

PROFESSOR FRANK A. GLASGOW,
Diseases of Women.

PROFESSOR E. M. SENSENEY,
Diseases of the Nose, Throat and Chest.

DR. ELISHA H. GREGORY, JR.,
Chief of Surgical Clinics.

ST. LOUIS CITY HOSPITAL.

CLINICAL LECTURERS.

PROFESSOR H. H. MUDD,
Surgery.

PROFESSOR HARVEY G. MUDD,
Alternate.

PROFESSOR W. E. FISCHEL,
Medicine.

DR. E. S. SMITH,
Alternate.

ST. LOUIS MEDICAL COLLEGE, SESSION 1896-97.

NAME.	RESIDENCE.
Abeken, Fred.	Missouri.
Ashcar, Charles Joseph	Missouri.
Amos, Newton Woodbury	Missouri.
Althouse, George Henry, A. B.	Missouri.
Ball, William Franklin	Arkansas.
Bassell, William Benedict	Missouri.
Barnett, Isaac Newton	Missouri.
Bland, Warren Wilson, B. S.	Missouri.
Bleuler, Ernest Alfred	Illinois.
Binney, Robert Webster	Illinois.
Bittman, Eugene Jacob	Missouri.
Bottom, Emmitt Hilbert	Illinois.
Buchanan, Thomas Woodson	Missouri.
Byrd, Richard Lilburn	Missouri.
Bryan, Richard Shepard	Missouri.
Clark, William Alfred, A. M.	Missouri.
Caldwell, Robert Lee, B. S.	Missouri.
Clarke, Boone William	Missouri.
Cross, William Walter, D.D.S.	California.
Cowan, Robert Mosby, A. B.	Missouri.
Currie, Donald Herbert	Missouri.
Churchill, Roy Henry	Illinois.
Davis, Homer Willard	Illinois.
Davis, Holland Archer	Missouri.
De Lisser, Glenwood Medcalfe	Missouri.
Digges, William Lloyd	Missouri.
Duckworth, Franklin Muron	Indian Territory.
Early, James Francis	Missouri.
Eberlein, Edwin William, Ph. G.	Missouri.
Elsey, James Ralph	Minnesota.
Farmer, Percy Joseph	Missouri.

NAME.	RESIDENCE.
Fischer, Oscar Herman, Ph. G.	Missouri.
Gradwohl, Rutherford Birchard Hayes . . .	Missouri.
Graves, John Bunyan	Missouri.
Greiner, Theodore	Missouri.
Green, John, Jr., A. B.	Missouri.
Goodrich, Charles Frances, Jr.	Missouri.
Gowans, Charles	Illinois.
Grimes, Robert Bruce, Jr.	Wyoming.
Harviell, Charles Poplin	Missouri.
Harris, Thomas Eugene	Missouri.
Hasting, William Edward	Indiana.
Hays, William Harrison	Missouri.
Heeley, Oliver Jasper	Illinois.
Hicklin, Frank Edward	Missouri.
Holke, Theophil James	Illinois.
Hovey, Walter Clark	Illinois.
Kane, Robert Emmet, A. B.	Missouri.
Keehn, Leonard	Missouri.
Kuhls, Frank George	Illinois.
Lademan, Oscar Emil	Missouri.
Lawless, Charles Lester	Missouri.
Liss, Julius	Illinois.
McKenzie, Robert Ewing	Illinois.
McCormick, James Edward	Missouri.
Marple, Harry Nelson	Missouri.
Moore, Henry Morgan, A. B.	Missouri.
Niebruegge, Henry John	Missouri.
Ogle, Oliver Lee	Illinois.
Paine, George Franklin	Missouri.
Park, Percival Albert	Illinois.
Printz, Felix Charles	Missouri.
Quinan, Clarence	California.
Richards, Emmett Earl	Missouri.
Romeiser, Theo. Hilgard	Illinois.
Romero, Felipe Benicio	New Mexico.
Stahl, Herbert Leroy, Ph. B	Illinois.

NAME.	RESIDENCE.
Scherrer, Elmer Alexander	Colorado.
Semple, Nathaniel Meacom, A. M.	Missouri.
Stewart, Samuel Smith	Missouri.
Simpson, Bernard Samuel	Missouri.
Smith, Ulysses Scott	Missouri.
Scott, Burt Loraine	Texas.
Scudder, David Arrell	Indiana.
Studer, Joseph Valentine	Missouri.
Slusher, Ernest Warren	Missouri.
Taphorn, Henry	Illinois.
Taussig, Frederick Joseph, A. B.	Missouri.
Thierry, Charles William, A. B.	Missouri.
Vogelsang, Edward Jacob	Missouri.
Watson, John Maxwell	Indiana.
West, Washington, Jr.	Illinois.
Zimmermann, William, A. M.	Illinois.
Zimmermann, Ernst, A. M.	Illinois.
Zimmermann, Carl August William, A. M. .	Illinois.

The St. Louis Medical College was founded in 1842 as the Medical Department of St. Louis University. Incorporated by special charter in 1855, its annual courses of instruction were continued by the same Faculty, which under an ordinance enacted April 14, 1891, was created the Medical Faculty of Washington University. In October, 1892, the College opened, in its new building, its fifty-first consecutive annual session.

The regular graded course of study covering three college years, established by the St. Louis Medical College in 1880, has been carefully elaborated, from year to year, as riper experience has dictated and always in the direction of higher standards and broader teaching. The annual sessions are of seven calendar months, and ample opportunities for clinical study are afforded throughout the entire year. To students fitted by adequate preliminary training to profit by a comprehensive and thorough course of medical study this college offers exceptional advantages.

A distinctive feature of the St. Louis Medical College is the requirement of and full provision for extended laboratory work, by every student, in all the fundamental subjects of medical study. The extent and scope of the required practical work in Anatomy and in Chemistry have been greatly enlarged, and full laboratory courses are given in Histology, in Medical Chemistry, in Pathological Anatomy and Histology, and in Bacteriology. In extent and completeness of laboratory equipment, the St. Louis Medical College ranks with the best and most progressive educational institutions of this country; in the comprehensiveness and thoroughness of its laboratory

instruction it is now, as it has been for many years, greatly in advance of other medical schools in St. Louis.

The methods of clinical teaching followed in the St. Louis Medical College are characterized by the same attention to individual training as in its laboratory instruction. Thorough practical courses in the technique of Surgical Dressings and Antisepsis and of Physical Diagnosis are given in the Junior Year, and systematic use is made of all the general and special clinics of the College in the further study of diagnostic methods as illustrated and tested in the personal examination of patients.

In the construction and furnishing of its new College building in 1892, at a cost of \$160,000.00, the Faculty availed itself to the utmost of its previous experience in developing new and better methods of medical instruction. Five Lecture halls, three of which are of theater arrangement, three Chemical laboratories (4,633 square feet of floor), two Physiological laboratories (3,000 square feet), Practical Anatomy rooms (2,330 square feet), a laboratory of Microscopy (2,330 square feet), a fully equipped Bacteriological laboratory, and a spacious reading room, afford ample and convenient accommodation without crowding in any department. The different laboratories are abundantly provided with the best appliances for individual work, as well as for special demonstration and research.

The O'Fallon Dispensary, a special Clinical Department of the College, with its general Medical and Surgical Clinics, and its special Clinics for Diseases of Children, for Diseases of the Eye, for Genito-Urinary

Surgery, for Diseases of Women, for Diseases of the Skin, for Diseases of the Ear, for Orthopædic Surgery, for Syphilis, for Diseases of the Nose, Throat and Chest, etc., is accommodated in the lower story. About 8,000 square feet of floor space, in six divisions, together with a spacious and admirably constructed operating theater with its waiting rooms and annexes, are devoted to this Department and amply meet its large and varied requirements.

The extensive general and special Clinics of the St. Louis Mullanphy Hospital are conducted by members of the Faculty and physicians connected with the St. Louis Medical College, and are devoted wholly to the instruction of its students. At the City Hospital, the Female Hospital, and the City Insane Asylum and Poor House, the College shares on equal terms with others in the privileges of visiting and of clinical instruction. Weekly Surgical and Medical Clinics are held at the City Hospital by Professors H. H. Mudd and W. E. Fischel, and are attended by the Middle and Senior Classes.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the College will be received, for the session of 1896-97, upon the conditions required by the Missouri State Board of Health. These requirements are obligatory on all candidates for admission to the study of medicine in any Medical School in Missouri; they are specified by the Board as follows:—

- “ (a) Creditable certificates of good moral standing.
- (b) Diplomas of graduation from a literary or scientific

college or high school, or, in lieu thereof, an examination by the State Superintendent of Public Schools in the following branches: English grammar and composition, arithmetic, algebra as far as quadratics, elementary physics, United States history, geography, and Latin equivalent to one year in a high school." *

Convenient dates for the inspection of diplomas and for the examination of candidates are arranged in September, before the opening of the College Session; these dates are furnished by the Dean of the College on application.

Students are advised in all cases to conform to the regulations governing the practice of Medicine in the State in which they intend to practice.

ADMISSION TO ADVANCED STANDING.

Students who have attended one course of lectures in an accredited regular School of Medicine, or who are graduates of an approved School of Biology, may enter the Middle Class upon presentation of a satisfactory grade from their former school in the studies of the Junior Year, or upon examination in these studies.†

* All diplomas of graduation or other certificates of a like character must be submitted to the State Superintendent of Public Schools, who will pass upon them and decide whether they shall be accepted; all candidates for admission to any medical school who do not present a diploma, together with those whose diplomas may be regarded by him as insufficient, will be examined by him in the subjects specified. The certificate of the State Superintendent of Public Schools is made an absolute requirement for admission to any Medical School in the State.

† Students from other colleges who fail to pass in some of the Junior examinations, may be received into the Middle class on condition that they pass these examinations at the end of the Middle year.

Students who have attended two courses of lectures in an accredited regular School of Medicine may enter the Senior Class upon presentation of a satisfactory grade from their former school in the studies of the Junior and Middle years, or upon examination in these studies.

COURSES OF STUDY.

The following courses of study are open to students, viz.: —

THREE YEARS COURSE.

Attendance on three annual sessions is required of all candidates for the degree of Doctor of Medicine. The studies are graded throughout the course, and are so arranged that the work of each year constitutes a necessary introduction to that of the succeeding year.

The Junior Year is devoted largely to laboratory exercises and to training in diagnostic methods; demonstrative and didactic teaching being supplemented, throughout, by practical courses in which prescribed individual work is done by every student. In the Middle Year laboratory work is continued, and more advanced instruction is given in the several courses of lectures and in the clinical courses especially appointed for this year. In the Senior Year the courses of lectures are continued, in all the general and special departments of Medicine and Surgery, and the number of clinical courses is very largely increased. Students are required to perform a prescribed amount of Dissection during each year.

At the close of the Senior Year the student may become a candidate for the degree of Doctor of Medicine or he may elect to continue his studies during a Fourth Year.

FOUR YEARS COURSE.

In the Fourth Year the instruction will be largely in the special branches of Medicine and Surgery, and will include special training in the use of instruments of precision (such as the Ophthalmoscope, the Laryngoscope, etc.), in the methods of practical Gynæcology, in the therapeutic applications of Electricity, and in practical work connected with the special subjects included in the course. Advanced instruction will be given in the laboratories of Histology, Bacteriology, and Pathology.

FOUR YEARS, ADVANCED COURSE.

The Fourth Year, Advanced Course, is open to all students who, having completed the work of the Senior Year, have passed with credit in all the required subjects of the Junior and Middle Years. Special clinical facilities, and opportunities for advanced work in all the laboratories of the College, will be afforded to those taking this course.

At the close of the Fourth Year, Advanced Course, the student may become a candidate for the degree of Doctor of Medicine, *cum laude*, or, in the case of his attaining to pre-eminent rank in his examinations, he may be graduated *summa cum laude*.

POST-GRADUATE COURSE.

Physicians, graduates of an accredited regular school of medicine, are admitted to any of the courses of instruction given in the College, subject to such restrictions as may grow out of the assignment of hours in the programmes of work laid out for the several classes, and to the single further restriction that, in the case of those desirous of taking advanced laboratory work, such pro-

ficiency in elementary work as may be necessary for its successful prosecution will be required. A certificate of actual attendance will be given upon request. Physicians who desire to become candidates for the degree of Doctor of Medicine in this College must enter the Senior Class and take the course of instruction and the examinations of the Senior Year.*

COURSE OF INSTRUCTION.

The course of instruction embracing three years is divided into six semesters, the first semester of each year ending at Christmas, the second semester beginning with the New Year.

JUNIOR YEAR.

	FIRST SEMESTER.	Hours a Week.
<i>Chemistry.</i> General Elementary† . . . Lectures and Conference	3	
“ “ Laboratory	4	
<i>Anatomy.</i> Osteology and Syndesmology † Lect.	3	
Descriptive Anatomy Lect.	3	
Comparative and Practical Anatomy Lab.	8	
<i>Histology.</i> Practical Work in Laboratory Lab.	6	
<i>Materia Medica</i> † Demonstrations and Lectures.	2	
(Matriculants of 1896 will take <i>Bacteriology</i> in the Junior Year.)		

SECOND SEMESTER.

<i>Chemistry.</i> ‡ Qualitative Analysis	Lab.	7
<i>Anatomy.</i> Descriptive Anatomy†	Lect.	3
Practical Anatomy	Lab.	8
<i>Histology.</i> ‡ Practical Work	Lab.	6
<i>Physiology.</i> With Demonstrations	Lect.	3
<i>Normal Auscultation and Percussion</i>	Practical Exercises.	2
<i>Surgical Dressings</i>	Practical Exercises.	1
<i>Pharmacy</i> †	Practical Exercises.	3

Students are required to pass in the subjects upon which examinations are appointed to be held in the *Junior Year*, before entering on the work of the *Middle Year*.

* For the conditions under which physicians, graduates of other medical schools, may take the Fourth Year, Advanced Course, and be admitted to examination for the degree of Doctor of Medicine, *cum laude*, see page 147.

† Examination in this branch is held about the end of the semester.

‡ Final Examination at the end of the semester.

MIDDLE YEAR.

THIRD SEMESTER.

	Hours a Week.
<i>Anatomy. Descriptive Anatomy</i>	Lect. 8
Practical Anatomy, as prescribed.	
<i>Physiology.† With Demonstrations</i>	Lect. 4
<i>Urinology. Practical Work</i>	Lab. 4
<i>Pathological Anatomy and Histology</i>	Lect. 2
Practical Work	Lab. 4
<i>Therapeutics</i>	Lect. 3
<i>Physical Diagnosis</i>	Practical Exercises. 3
<i>Practice of Medicine</i>	Lect. 3
<i>Diseases of Children</i>	Lect. 2
<i>Principles and Practice of Surgery</i>	Lect. 3
<i>Clinics. General Medical Clinics</i>	Clin. 1
General Surgical Clinics	Clin. 3

FOURTH SEMESTER.

<i>Anatomy. Descriptive Anatomy*</i>	Lect. 8
Practical Anatomy, as prescribed.	
Regional Anatomy†	Lect. 2
<i>Pathological Anatomy and Histology*</i>	Lect. 2
Practical Work	Lab. 4
<i>Therapeutics*</i>	Lect. 1
<i>Practice of Medicine*</i>	Lect. 3
<i>Clinical Medicine</i>	Lect. 1
<i>Diseases of Children</i>	Lect. 2
<i>Diseases of the Nervous System</i>	Lect. 2
<i>Principles and Practice of Surgery</i>	Lect. 3
<i>Ophthalmology</i>	Lect. 1
<i>Clinics. General Medical</i>	Clin. 2
General Surgical	Clin. 5
Diseases of Children	Clin. 1
Diseases of Nose, Throat and Chest	Clin. 1
Diseases of the Genito-Urinary Organs	Clin. 2
Gynaecological	Clin. 1
Diseases of the Ear	Clin. 1
Orthopaedic	Clin. 1

Students are required to pass in the subjects upon which examinations are appointed to be held in the *Middle Year*, before entering on the work of the *Senior Year*.

* Examination in this branch is held about the end of the semester.

† Final Examination at the end of the semester.

SENIOR YEAR.

FIFTH SEMESTER.

	Hours a Week.
<i>Anatomy.</i> Practical Anatomy, as prescribed.	
<i>Principles of Medicine</i>	Lect. 1
<i>Practice of Medicine</i>	Lect. 3
<i>Clinical Medicine</i>	Lect. 1
<i>Principles and Practice of Surgery.</i> (Optional)	Lect. 3
<i>Diseases of the Genito-Urinary Organs</i>	Lect. 2
<i>Ophthalmology</i>	Lect. 1
<i>Obstetrics</i>	Lect. 3
<i>Gynaecology</i>	Lect. 1
<i>Hygiene</i> †	Lect. 2
<i>Clinics.</i> General Medical	Clin. 2
General Surgical	Clin. 5
Diseases of Children	Clin. 1
Diseases of Nose, Throat and Chest	Clin. 1
Diseases of the Nervous System	Clin. 1
Diseases of the Genito-Urinary Organs	Clin. 3
Syphilis	Clin. 1
Gynaecological	Clin. 2
Diseases of the Eye	Clin. 1
Diseases of the Ear†	Clin. 1
Orthopaedic†	Clin. 1
Diseases of the Skin	Clin. 1
Obstetrical Clinic, as appointed.	

SIXTH SEMESTER.

<i>Anatomy.</i> Practical Anatomy, as prescribed.	
<i>Bacteriology</i> † Practical Work	Lab. 4
<i>Principles of Medicinet</i>	Lect. 1
<i>Practice of Medicinet</i>	Lect. 3
<i>Clinical Conference</i>	Clin. 2
<i>Principles and Practice of Surgery</i> † (Optional)	Lect. 3
<i>Special Fractures and Dislocations</i> †	Lect. 2
<i>Syphilis</i>	Lect. 1
<i>Obstetrics</i> †	Lect. 3
<i>Gynaecology</i> †	Lect. 2
<i>Forensic Medicinet</i>	Lect. 2
<i>Clinics.</i> General Medical†	Clin. 2
General Surgical†	Clin. 3
Diseases of Children	Clin. 3

† Final Examination at the end of the semester.

	Hours a Week.
Diseases of the Nervous System	Clin. 1
Diseases of the Genito-Urinary Organs†	Clin. 1
Syphilis	Clin. 1
Gynaecological	Clin. 1
Diseases of the Eye†	Clin. 1
Diseases of the Skin†	Clin. 1
Obstetrical Clinic, as appointed.	

Students taking a *Four Years Course* will postpone their examinations in Diseases of the Ear and Orthopaedic Surgery to the end of the seventh semester, and those in Gynaecology, Diseases of the Nervous System, Diseases of the Genito-Urinary Organs, Diseases of the Eye, and Diseases of the Skin, to the end of the Fourth Year.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MEDICINE.

- (1) The candidate must be twenty-one years of age, and of good moral character.
- (2) He must have studied medicine four years and attended not less than *three* regular annual courses of medical instruction, the last of which must have been the Senior, or the Fourth-Year, course of this College.
- (3) He must, by the first of April, have notified the Dean, in writing, of his intention to present himself for examination.
- (4) He must have passed a satisfactory examination in all the required subjects of the curriculum.

The faculty recommend the student to postpone his application for graduation until the end of a fourth collegiate year.

THE FOURTH YEAR, ADVANCED COURSE.

The Fourth Year, Advanced Course, is open to students and physicians, who have attended the Senior Year in this College, and who have, before the beginning of the Fourth Year, passed a satisfactory examination in all the required studies of the Junior and Middle Years.

Graduates of accredited medical schools requiring three

† Final Examination at the end of the semester.

full courses of study as a condition of graduation, may enter the Advanced Course by passing a satisfactory examination in all the required studies of the Junior and Middle Years.

THE DEGREE OF Doctor of Medicine, *cum laude*.

The degree of Doctor of Medicine, *cum laude*, is conferred on Fourth Year advanced students, who, having passed in all the required subjects of the four years, have attained an average of seventy-five per cent.

Applicants for this honor, who, having passed in all the required subjects of the four years, have attained an average of ninety per cent, shall receive the degree of Doctor of Medicine *summa cum laude*.

Applicants who fall below the required percentage in the examination for these higher degrees, but whose average justifies their graduation, shall receive the degree of Doctor of Medicine.

FEES.

Matriculation Fee (payable but once)	\$5 00
Fee for the Junior Middle and Senior Years, each . .	100 00
Fee for a Fourth Year	100 00

No charge is made for laboratory supplies or use of anatomical material.

No charge is made for demonstrators' or hospital tickets, or for graduation.

The matriculation fee (\$5.00), and the fee for the year, \$100.00), are payable to the Dean at the time of matriculation, at the beginning of the College year, in September.

Students are required to provide themselves with such articles of chemical apparatus as test-tubes, watch-glasses, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

All indebtedness to the College must be discharged before entering on the final examination for graduation.

NOTE.— Graduates of the St. Louis Medical College have perpetual free admission, but will be charged a laboratory fee of \$20.00.

Graduates, under three years, of other medical schools, will be charged the matriculation fee and twenty dollars, for attendance during a college year or part of a year; they will also be charged a laboratory fee of \$20.00.

Graduates of other medical schools, of three or more years' standing, will be charged the matriculation fee and a laboratory fee of \$20.00.

Graduates in medicine who may be admitted to the College as candidates for a degree will be charged the matriculation fee and the fee for one year.

Special Courses of Instruction may be arranged for with the Dean.

TEXT-BOOKS.

The names of works recommended as Text-Books are printed in *italics*; those recommended for reference, in common type,— latest editions being understood.

CHEMISTRY.

Long's Experimental and Analytical Chemistry. *Sanger's Laboratory Notes in General Chemistry and Qualitative Analysis.* *Simon's Manual of Chemistry.* *Newth's Text-book of Inorganic Chemistry.*

ANATOMY.

Gray's Anatomy, or Morris's Human Anatomy. *Treves's Surgical Applied Anatomy.* *Quain's Anatomy.* *Holden's Osteology.* *Holden's Guide to Dissections.*

HISTOLOGY.

Piersol. Stöhr.

PHYSIOLOGY.

Foster. American Text-book of Physiology.

MATERIA MEDICA AND THERAPEUTICS.

H. C. Wood's Therapeutics. Hare's Text-book of Practical Therapeutics. Thornton's Dose Book and Manual of Prescription Writing. United States Dispensatory.

PATHOLOGICAL ANATOMY AND HISTOLOGY.

Ziegler. Woodhead. Delafield and Prudden.

BACTERIOLOGY.

Sternberg's Manual for Students. McFarland's Text-book of Pathogenic Bacteria.

MEDICINE.

Osler, Wood & Fitz, or Tyson. Loomis's Physical Diagnosis. Vierordt's Medical Diagnosis. Da Costa's Medical Diagnosis.

DISEASES OF THE NERVOUS SYSTEM.

C. L. Dana. L. C. Gray.

DISEASES OF CHILDREN.

Rotch, Diseases of Children. Starr's American Text-book of Diseases of Children.

SURGERY.

American Text-book of Surgery. A Treatise on Surgery by American Authors. Hamilton on Fractures and Dislocations. Stimson's Operative Surgery. Warren's Surgical Pathology and Therapeutics.

OBSTETRICS.

Playfair's System of Midwifery. Parvin's Obstetrics. Lusk's Obstetrics. Boislinière on Obstetrical Emergencies and Operations.

GYNAECOLOGY.

American Text-book of Gynaecology. Clinical Gynaecology, Keating & Coe. Goodell's Lessons in Gynaecology. Garrigues's Diseases of Women. American System of Obstetrics and Gynaecology.

GENITO-URINARY DISEASES.

Morrow's System of Genito-Urinary Diseases. *Keyes's Genito-Urinary Diseases with Syphilis.* *Taylor's Venereal Diseases.*

SYPHILIS.

Cornil. (American edition.)

OPHTHALMOLOGY.

Norris and Oliver. *Noyes.* *Fuchs.* *Nettleship.*

OTOTOLOGY.

Buck. *Field.* *Burnett.* *Politzer.*

DERMATOLOGY.

Crocker's Treatise on Diseases of the Skin.

FORENSIC MEDICINE.

Witthaus & Becker's Medical Jurisprudence, Forensic Medicine and Toxicology.

ORTHOPÆDIC SURGERY.

James K. Young's Orthopædic Surgery. *Walsham & Hughes, Deformities of the Human Foot.* *Bradford & Lovett, Orthopædic Surgery.*

SCHOLARSHIPS.

1. THE HENRY HITCHCOCK SCHOLARSHIP is held by Hon. Henry Hitchcock, and entitles the beneficiary to one year's free tuition.
2. THE GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Diseases of Children, entitles the holder to one year's free tuition.

PRIZES.

Two "GEORGE F. GILL" prizes are offered to the students of the St. Louis Medical College, viz.: —

1. One prize of \$50 to be awarded at the end of the Junior year to the member of the class who shall have done the best work in *Anatomy*.
2. One prize of \$50 to be awarded to a member of the graduating class, of high general standing, who shall have done specially good work in the department of *Diseases of Children*.

In April, 1896, the George F. Gill prize in anatomy was awarded to Mr. Ulysses S. Smith; the prize for meritorious work in the study of diseases of children, to Dr. John McHale Dean.

Physicians who wish to receive the Annual Announcement of the St. Louis Medical College regularly, are requested to send their address to the Secretary of the Faculty, Dr. E. M. Senseney, No. 2829 Washington avenue; notice of change of residence is also desired. All further information may be obtained by addressing or calling upon the Dean.

DR. HENRY H. MUDD,
No. 2604 Locust Street.

MISSOURI DENTAL COLLEGE.

(DENTAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

The THIRTY-FIRST ANNUAL SESSION begins on Thursday, September 24th, 1896, and ends on Thursday, April 29th, 1897. Preliminary Examinations will be held on Tuesday, September 22d, and Wednesday, September 23d.

CHRISTMAS RECESS: Thursday, December 24th, 1896, to Monday, January 4th, 1897, inclusive.

COMMENCEMENT: Thursday, April 29th, 1897.

HOLIDAYS: Thursday of Fair week, Thanksgiving Day, Washington's Birthday.

The annual session for 1896-7, will be held in the College building, 1814 Lucas Place, in the immediate neighborhood of the University buildings and opposite the Museum and School of Fine Arts. Students on arriving in the city are requested to apply to the Superintendent of the Infirmary for information as to rooms, boarding, etc. Good board at a convenient distance from the College may be obtained at from four to six dollars a week.

Dentists who wish to receive the Annual Announcement regularly, or those who have changed their address, are requested to notify the Secretary of the Faculty, DR. A. H. FULLER, Columbia Building, southeast corner Eighth and Locust streets.

Any further information may be obtained by addressing or calling upon the Dean,

HENRY H. MUDD, M. D.,
2604 Locust Street.

MISSOURI DENTAL COLLEGE.

BOARD OF OVERSEERS.

JAMES E. YEATMAN, President.

HENRY HITCHCOCK.

CARLOS S. GREELEY.

HENRY H. MUDD, M. D., Treasurer.

ALBERT H. FULLER, D.D.S., Secretary.

HENRY J. MCKELLOPS, D.D.S.

JAMES B. NEWBY, D.D.S.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor of the University.

ELISHA H. GREGORY, M. D., LL.D.,
Professor of the Principles and Practice of Surgery.

ALBERT H. FULLER, M. D., D.D.S., Secretary,
Professor of Operative Dentistry.

HENRY H. MUDD, M. D., Dean,
Professor of Clinical Surgery.

ORION W. BEDELL, M. D., D.M.D.,
Professor of Mechanical Dentistry,
Instructor in Dental Embryology and Pathology.

PAUL Y. TUPPER, M. D.,
Professor of Descriptive Anatomy.

EDGAR M. SENSENEY, M. D.,
Professor of Therapeutics and Materia Medica.

CHARLES R. SANGER, A. M., Ph. D.,
Professor of Chemistry.

SIDNEY P. BUDGETT, M. D.,
Professor of Physiology and Histology.

JOSEPH B. KIMBROUGH, D.M.D.,
Superintendent of Infirmary.

LECTURERS.

- JOHN G. HARPER, D.D.S.
- JOSEPH MASERANG, JR., Ph. G.

DEMONSTRATORS.

Of Anatomy.

- E. H. GREGORY, JR., M. D.,
V. P. BLAIR, M. D.,
H. L. NIETERT, M. D.

Of Mechanical Dentistry.

- CHARLES W. RICHARDSON, D.D.S.

Of Operative Dentistry.

- ALFRED D. FULLER, D.M.D.,
DAVID E. MORROW.

CLINICAL INSTRUCTORS.

- GEORGE A. BOWMAN, D.D.S.
JAMES W. WICK, D.D.S.
JAMES B. NEWBY, D.D.S.
HENRY M. BAIRD, D.D.S.
THEODORE L. PEPPERLING, D.D.S.
ABEL J. PROSSER, D.D.S.
PETER H. EISLOEFEL, D.D.S.
JOHN G. HARPER, D.D.S.
ORMOND H. MANHARD, D.D.S.
CARL E. SCHUMACHER, D.D.S.
PETER H. MORRISON, M. D., D.D.S.
ALBERT H. FULLER, M. D., D.D.S.
ROBERT R. VAUGHN, D.D.S.

**STUDENTS OF MISSOURI DENTAL COLLEGE,
SESSION 96-97.**

NAME.	ADDRESS.
Alexander, Albert Clyde	Missouri.
Alloway, Henry Clinton	Missouri.
Barry, Burt	Illinois.
Bartel, Louis William :	Illinois.
Black, Robert Elliott	Illinois.
Bay, Roy	Illinois.
Blair, Franklin Pearce	Illinois.
Brandenberger, Hermann	Missouri.
Bellechamber, Charles Edward	Illinois.
Bedell, Charles Thompson	Missouri.
Bretelle, Ambrose King	Missouri.
Brink, Fred Wilmot	Missouri.
Brite, Ewing Morris	Missouri.
Brown, William	Illinois.
Boothe, John Charles	Illinois.
Brooking, David Long	Missouri.
Busch, Walter August	Missouri.
Carrell, Oscar Vane	Iowa.
Clark, Henry Thomas	Missouri.
Crews, Charlie Carroll	Virginia.
Colby, Otis Clinton	Illinois.
Corder, George Washington	Missouri.
Davison, Will Darley	Missouri.
DeGuire, Murton Elbert	Oregon.
Dickson, Wesley Baxter	Missouri.
Drown, John Hurd	Missouri.
Ellis, Roy Herndon	Missouri.
Evans, William Hawson	California.
Farrow, Claudious Golder	Arkansas.
Frank, George Henry	Missouri.

NAME.	ADDRESS.
Ferguson, Stonewall Jackson,	Missouri.
Fitzgerald, Montgomery Michael	Missouri.
Fruth, Otto Jacob	Missouri.
Garrett, Walter B.	Missouri.
Gardiner, William Wetzel	Missouri.
Grissom, Milton Absom	Missouri.
Hammond, Harry Barnum	Missouri.
Henry, Leonard Quirin	Missouri.
Hill, Robert Jano	Missouri.
Hoffmann, Henry Robert	Missouri.
Houston, Esco Tarleton	Missouri.
Hudson, Otis	Missouri.
Hugo, Charles William	Kansas.
Hull, James William	Missouri.
Hyndman, Hunter Samuel	Illinois.
Jolley, Charles Westley	Kansas.
Joiner, Harvey Hugh	Texas.
Kendall, Porter	Missouri.
Kimbrough, Henry Shepperd	Missouri.
Koch, Victor Emmanuel	Missouri.
Lansberg, Herman Max	Missouri.
Lehnhard, Philip Jay	Missouri.
Lehmberg, Hugo Adolph	Missouri.
Leibrock, John Phillip	Illinois.
Lenze, Paul William	Missouri.
Loesch, George Washington	Missouri.
Mitchell, Charles Brown	Missouri.
Miller, Thomas Crawford	Missouri.
Mockbee, Charles Robertson	Missouri.
Moore, Edwin	Missouri.
Morrow, Edwin Day ,	Missouri.
Morrow, David Erwin	Missouri.
Mueller, Henry Charles	Illinois.
Niemeyer, Ernest Louis	Illinois.
Nifong, Sylvester Cook	Missouri.

NAME.	ADDRESS.
Owens, Benjamin Thornton	Texas.
Pearce, Gilbert Dorset	Missouri.
Pemberton, Earl Powell	Montana.
Rapp, Fred Bunnelle	Missouri.
Rawson, Leslie Emmet	Missouri.
Reisse, Edward Charles	Missouri.
Rhodes, Noble Gregory	Missouri.
Rothschild, Aaron	Kansas.
Ruff, Charles Bascom	Missouri.
Sandel, Huntington	Louisiana.
Sappington, Clarence Leffingwell	Missouri.
Schaer, Charles	Missouri.
Schwaner, Rolla Albert	Iowa.
Spann, Herman Theodor	Missouri.
Schlagenhauf, Edward	Illinois.
Steinmesch, Henry Garrette	Missouri.
Scherzinger, Alex	Missouri.
Smith, George Walter	Illinois.
Smith, James	Missouri.
Stocker, Don	Missouri.
Sommers, Charles Edward William	Missouri.
Scudder, Rhodin Cunningham	California.
Temm, Brautner Edwin William	Missouri.
Tschirner, Albert Paul	Missouri.
Wallace, Maxwell Sharp	Missouri.
Walker, Edward Wilber	Missouri.
Weber, Wilson Rudolph	Texas.
Wild, John	Missouri.
Wild, Rudolph	Missouri.
Widmann, Rudolph	Missouri.
Williams, Samuel	Missouri.
Wiseman, Fieldon William	Missouri.
Woolfolk, Ernest Sylvester	Missouri.
Yeargain, George Wesley	Missouri.

REQUIREMENTS FOR ADMISSION.

Every candidate for admission must present to the Faculty satisfactory evidence of a good moral character. He must have a good English education, as evidence of which a diploma from a reputable literary institution, a teacher's certificate or other evidence of qualification will be accepted, in conformity with the requirements of the National Association of Dental College Faculties. If he have neither of these, he may be admitted to the College upon passing a written examination before the Examining Committee of the Faculty on the following subjects: Orthography, English Grammar, Arithmetic, Geography, American History and Elementary Physics. He will also be required to write a Composition of a given number of words, on some common subject.

Those expecting to take this examination should carefully prepare themselves prior to coming before the committee. This may be done by home study or attendance at night schools.

Students, who have attended courses of lectures in other accredited schools of Dentistry, will be received into the advanced grades of Middle and Senior classes only upon presentation of certificates of having passed examinations in the studies of the Junior and Middle grades respectively.

Such certificates are recognized as pledges to any College of the Association of Dental Faculties, to whom the holder may apply, that the stated number of terms have been spent in the institutions by which the certificates are

issued and will be granted to any student at his request after the satisfactory completion of a given course of study.

Graduates of reputable medical schools may matriculate as Second Year students without examination.

As the course of instruction has been divided in such a way as to cover the entire session, and is a graded course, it is considered very important that students shall be in attendance the first day of the term.

SCHEDULE CARDS.

At the opening of the session students will receive cards which show the order of lectures, the hours of clinics in the different hospitals, and the hours for practice in the Infirmary, and for work in the Chemical Laboratory.

Students of all classes are required to register each year at the beginning of the session.

No student of any class will be registered after the 28th day of the session.

THREE YEARS COURSE.

Attendance on three annual sessions is required of all candidates for the degree of Doctor of Dental Medicine.

LECTURES.

The course of lectures included in the curriculum of this College has been so classified and arranged as to give the student the best facility for gaining a thorough knowl-

edge of the branches taught. Two or more of the studies embraced in the separate courses will be completed during each year, and consequently the students will be free to pursue the remaining studies in the succeeding years.

A portion of the lectures to dental students is given in the St. Louis Medical College, in connection with the medical classes, furnishing a rare opportunity for the dental student to acquire the comprehensive knowledge of the science of medicine, so indispensable to the successful practice of any specialty.

The Museum, Anatomical Rooms and Chemical Laboratory of the St. Louis Medical College are as free to the dental as to the medical student. The arrangement with this institution is such, that by taking additional branches in connection with the work of three dental terms, the dental student may qualify himself for admission to the Senior Class in the Medical College, and may then become a candidate for the degree of Doctor of Medicine at the close of the term in the following April.

In addition to the regular course of instruction, there will be clinical lectures and demonstrations by a number of dentists, eminent in the profession as successful practitioners.

INFIRMARY.

The College Infirmary, under the direction of the Superintendent, Dr. Joseph B. Kimbrough, and the demonstrators, will be open daily, furnishing ample opportunity for instruction in practical dentistry. The Surgical Clinics at the City, Sisters', St. Luke's and

other hospitals, and at the College Dispensary, afford opportunities for instruction that cannot be found except in large cities.

The record of the Infirmary work from March, 1895, to March, 1896, shows the amount of clinical material furnished the student.

Gold Fillings	1706	Gold plates	15
Amalgam Fillings	1484	Bridges	41
Other Fillings	121	Gold Crowns	153
Full Plates	135	Richmond Crowns	186
Partial Plates	142	Teeth Extracted	4518

DENTAL OPERATING ROOM.

This room, 84'x26', having one side of continuous windows reaching from floor to ceiling, fitted with Morrison chairs, brackets, spittoons, and wall cabinets to hold student's entire operating outfit, makes an ideal place for the student to learn the practical part of his profession.

Special efforts will be made in the Surgical Clinics, to demonstrate surgical diseases of the mouth, and lectures on tumors of the jaw will be given.

The Superintendent, Dr. J. B. Kimbrough, will be in daily attendance at the Infirmary.

A progressive course of Clinical Lectures accompanied with practical demonstrations will be given covering the entire field of prosthesis and orthodontia.

The Junior and Middle classes will be divided into sections and each individual student required to perform under the eye of the Superintendent or his assistants, the

successive steps as presented, and no student will be allowed to take up new work until he has mastered the technique of the old. By the observance of this rule, the student at the end of the three years' course will be as well qualified practically, as graduates heretofore have been theoretically.

A large Clinic is already established at the new Infirmary, supplying abundant material for practical work in operative dentistry, prosthesis and orthodontia.

MECHANICAL DENTISTRY.

This branch is taught theoretically and practically by the Professor, as well as by the Demonstrators and Clinical Instructors, who give the practical work in the laboratory and at the chair. It embraces the following subjects: —

The treatment of the mouth preparatory to the insertion of artificial dentures; — The materials, appliances and methods employed in obtaining impressions of the mouth; — Plaster models; — The making of dentures on the plastic bases — rubber and celluloid. Vulcanizing, pressing and finishing.

Metallic dies and counter-dies. Taking the bite. The selection and arrangement of teeth.

The refining of gold. Making alloys of gold and converting them into the required form for dental purposes. The properties of the various metals used in Prosthetic Dentistry; gold, silver, copper, aluminum, zinc, lead, tin, platinum, antimony, bismuth, together with their most important alloys.

The laboratory work connected with crown and bridge work. Observations on fuels and the various methods of generating and applying heat. The making and the use of appliances for regulating the teeth.

DENTAL SCIENCE.

This course embraces lectures on the special and minute anatomy of the teeth. Their origin and development, normal and abnormal, including their histological characteristics. The eruption of the teeth and the diseases incident thereto. The pathological relation of the teeth to other parts of the organism, together with the symptoms, causes and treatment of diseases which involve the dental structures.

The phenomena of inflammation.

The etiology, classification, symptomatology and treatment of the various forms of pulpitis, pericementitis and of the degenerations and the atrophies.

The phenomena of caries. The influence of bacteria in caries and other pathological conditions.

A classification of the remedial agents, local and systemic, employed in dental practice.

OPERATIVE DENTISTRY.

The lectures will embrace a description of the teeth and their surfaces. Dental caries. The preservation of the teeth, crown and bridge work, and the operations of Dental Surgery will be considered.

Careful consideration will be given the instruments

and appliances used in operations upon the teeth, as well as the different materials used for stoppings.

These lectures are supplemented by a course of Operative Techniques under the direction of the Demonstrator of Operative Dentistry, so as to make the instruction not only theoretical but very practical.

SCHEDULE OF STUDIES.

FIRST OR JUNIOR YEAR.

Subjects Completed the First Year.

- Dental Anatomy.
- Materia Medica.
- Comparative Anatomy, with Dissection.
- Pharmacy.

Subjects Taken First Year and Continued During Second Year.

- Descriptive Anatomy.
- Practical Anatomy.
- Therapeutics.
- Mechanical Dentistry.
- Dental Technology, Lecture and Laboratory Work.
- Metallurgy.

SECOND OR MIDDLE YEAR.

Subjects Completed the Second Year.

- Descriptive Anatomy.
- Therapeutics.
- Chemistry.
- Mechanical Dentistry.
- Metallurgy.
- Orthodontia.

Subjects Taken Second Year and During Third Year.

- Physiology.
- Operative Dentistry.
- Institutes of Dental Science.

THIRD OR SENIOR YEAR

Subjects Completed the Third Year.

Physiology.

Hygiene.

Surgery and Clinical Surgery.

Operative Dentistry.

Institutes of Dental Science.

EXAMINATIONS.

I.—OF THE JUNIOR YEAR:

- (1) In *Anatomy*: (a) Dental Anatomy;
(b) Practical Anatomy;
- (2) In *Materia Medica and Therapeutics*:
(a) General properties of drugs, and
Pharmacy.

Students are required to pass in the subjects upon which examinations are appointed to be held at the end of the *Junior* year, before entering upon the work of the *Middle* year.

II.—OF THE MIDDLE YEAR:

- (1) In *Anatomy*: (c) Descriptive Anatomy.
- (2) In *Materia Medica and Therapeutics*:
(b) Therapeutics.
- (3) In *Chemistry*: (a) General Chemistry (written, in
January).
(b) Qualitative Chemistry (practical).
- (4) In *Mechanical Dentistry*:
(a) Final Examination.

Students are required to pass in the subjects upon which examinations are appointed to be held at the end of the *Middle* year, before entering upon the work of the *Senior* year.

III.—OF THE SENIOR YEAR:

- (5) *Physiology*.
- (6) *Principles and Practice of Surgery*.
- (7) *Operative Dentistry*.
- (8) *Institutes of Dental Science*.
- (9) *Hygiene*.

REQUISITES FOR THE DEGREE OF DOCTOR OF DENTAL MEDICINE.

The candidate for graduation must be twenty-one years of age.

He must have attended three regular annual courses (no two courses of which shall have been taken during the same year) of dental instruction, the last of which must have been the Senior Course of this College.

He must treat thoroughly patients requiring all the usual dental operations, and under the eye of the Demonstrator, or Superintendent of the Infirmary, construct practical artificial cases. He must undergo a satisfactory examination on all the branches taught in the College.

Graduates of reputable medical colleges will be admitted to the second-year course and will be excused from lectures and examinations upon general anatomy, general pathology, chemistry, physiology and *materia medica* and therapeutics, but will be required to take the courses in operative and prosthetic technics.

Application for examination for the degree of D.M.D. must be made in writing by the 1st of April, each year, stating the claims of the applicant for such a degree.

This application should be accompanied by at least three letters of recommendation attesting good moral character from prominent citizens of the place of residence of the applicant.

FEES.

Matriculation Fee (paid but once)	\$5 00
Tuition, each Session	100 00

No charge for demonstrator's ticket or diploma.

The entire fee is due and must be paid at the beginning of each term. No student will be permitted to take final examination unless tuition fees have been paid.

INSTRUMENTS.

The operating rooms and laboratory at the Infirmary are amply supplied with stationary furniture, such as chairs, lathes, benches, furnaces, etc. Students are required to provide themselves with such articles of chemical apparatus as test-tubes, beakers, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

TEXT-BOOKS.**LATEST EDITIONS ONLY.**

Anatomy — Gray.

Chemistry — Long's Experimental and Analytical Chemistry.

Physiology — Foster's Text-Book of Physiology.

Pharmacy — United States Pharmacopœia.

Materia Medica and Therapeutics — H. C. Wood's.

Principles and Practice of Dentistry — Harris.

Mechanical Dentistry — Essig. American Text-Book of Prosthetic Dentistry.

Orthodontia — Angle.

Surgery — "An American Text-Book of Surgery." — Keen and White.

Operative Dentistry — Taft.

Dental Anatomy and Pathology — Bödecker. Tomes.

Methods of Filling Teeth — Ottolengui.

Histology — Piersol.

Crown and Bridge Work — Evans.

Books of Reference — American System of Dentistry; Harris Dental Dictionary; Garretson or Tomes Dental Surgery; Talbot — Orthodontia; Kingsley and Coles — Oral Deformities; Newth's Inorganic Chemistry; Simon Manual of Chemistry.

PRIZES.

Prizes will be awarded for proficiency in the different branches taught in the College.

The Missouri Dental College Faculty Prize.—An elegant gold medal to the graduate receiving the highest vote on final examination.

The S. S. White Dental Manufacturing Company Prize.—A set of Varney Pluggers to the graduate excelling in Operative Dentistry.

The John Rowan Dental Depot Prize.—A No. 2 Bonwell Engine Mallet to the graduate standing second best in practical Operative Dentistry.

The St. Louis Dental Manufacturing Company Prize.—A laboratory lathe for the best specimen case of artificial teeth.

For further information concerning the Dental College apply to the Secretary of Washington University or to

DR. H. H. MUDD,
Dean of the Dental College,
2640 Locust St.

SMITH ACADEMY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1896-1897.

ENTRANCE EXAMINATION, Monday, Tuesday, Wednesday,
September 21, 22, 23.

FIRST TERM begins Thursday, September 24.

HOLIDAY, Thanksgiving Day, Thursday, November 26.

VACATION, December 24, 1896, to January 3, 1897, inclusive.

FIRST TERM ends Friday, January 29.

SECOND TERM begins Monday, February 1.

HOLIDAY, Washington's Birthday, Monday, February 22.

UNIVERSITY HOLIDAY, Friday, May 14.

ENTRANCE EXAMINATION, Saturday, June 12.

GRADUATING EXERCISES, Tuesday, June 15.

VACATION, June 18 to September 23.

1897-1898.

ENTRANCE EXAMINATION, Monday, Tuesday, Wednesday,
September 20, 21, 22.

FIRST TERM begins Thursday, September 23.

HOLIDAY, Thanksgiving Day, Thursday, November 25.

VACATION, December 24, 1897, to January 2, 1898, inclusive.

FIRST TERM ends Friday, January 28.

SECOND TERM begins Monday, January 31.

OFFICERS OF GOVERNMENT AND INSTRUCTION.

WINFIELD S. CHAPLIN, A. M.,
LL.D., Chancellor of the University . 3636 W. Pine boul.
CHARLES P. CURD, A. M., LL.B.,
Principal 5641 Von Versen av.
WILLIAM W. GALE, A. B., Teacher
of Greek and History 3111 Lucas av.
EDWARD F. JACKSON, A. B., E. M.,
Teacher of Latin and History 4400 Morgan st.
LOUIS L. HOOPER, A. B., Teacher of
Mathematics 3113 Washington av.
HARVEY KAY COLEMAN, A. M.,
Teacher in charge of Fourth Year
Class 5678 Cabanne pl.
CLARENCE H. WOOLSEY, A. M.,
Teacher in charge of Third Year
Class 352 Spring av.
ALFRED H. ROUDEBUSH, A. B.,
Teacher in charge of Second Year
Class 5858 Cates av.
EDMUND A. BURNHAM, A. B.,
Teacher in charge of First Year Class 3844 Delmar boul.
LUTHER SMITH, A. B., Teacher of
Higher English and Elocution . . . 2910 Pine st.
EDWARD L. BURDICK, S. B., Teacher
of Physics, Chemistry and Drawing . 3831 Morgan st
HENRY A. BAKER, A. B., Teacher of
German 2910 Pine st.
WM. H. BOEHM, B. S., M. M. E.
Teacher of Drawing 906 N. Compton av.

GEORGE M. TUTTLE, A. B., M. D.,
Teacher of Physiology 2942 Washington av.
AUGUST H. MUEGGE, Teacher of
Gymnastics 2712 Franklin av.
WILLIAM H. POMMER, Teacher of
Vocal Music 777 Euclid av.
MME. JUVET-KAUFMANN, Teacher
of French 4323 Morgan st.
MISS MABEL EVANS, Ph. B., Assist-
ant Teacher of Second Year Class . 3511 Bell av.
† MISS ANNA H. CHANDLER, Assist-
ant Teacher of Second Year Class . . 5716 Cates av.
MISS LENA K. DIETERICH, Assistant
Teacher of Second Year Class 3613 N. Broadway.
MRS. ANNA C. HILLMAN, Teacher in
charge of Second Year Class, Prepar-
atory Department Webster Groves.
MRS. ISABELLE H. LARE, Assistant
Teacher in Preparatory Department . 3109 St. Vincent av.
MRS. EMMA KAYSER, Teacher in
charge of First Year Class, Prepara-
tory Department 4927 Reber pl.
MISS CLARA Y. VAN NORSTRAND,
Assistant Teacher in Preparatory De-
partment 3015 Lucas av.

† On leave of absence in Germany.

SMITH ACADEMY.

HISTORICAL STATEMENT.

Smith Academy was founded in 1853, and began regular work in the following year.

The Academy building now occupied was erected in 1878 -79, and the name SMITH ACADEMY, was given to the school in recognition of the munificence of James Smith and Persis Smith, his wife, from whom the whole amount (\$75,000) expended in the building, including the ground and furniture, was received.

ADMISSION.

ACADEMIC DEPARTMENT.

Pupils are admitted to the First Year Class at the age of eleven years, provided they can pass a satisfactory examination in reading, spelling, English language and composition, penmanship, geography, and arithmetic as far as percentage.

Pupils are admitted to any class, provided they can pass a satisfactory examination in the studies pursued by the class below the grade which they wish to enter. The courses of study as now arranged are sufficient to meet the requirements for admission to any college or scientific school.

No pupil will be received for less than one term, and no abatement in tuition will be made for absence, whether such absence occurs at the beginning, middle, or end of the term.

COURSES OF STUDY.

The courses of study in this Department are three in number. The Classical Course and the Course without Greek extend over six years; the Preparatory Scientific Course extends over five years. All the courses are identical during the first two years, but no pupil is required to take all the regular studies. At the beginning of the third academic year, those pupils who wish to prepare for the regular classical course in college and to obtain the regular college degree of Bachelor of Arts take the Classical Course; those who wish to prepare for the college course in Philosophy take the Course without Greek. This differs from the Classical Course only in substituting Science and Modern Languages for Greek. The Preparatory Scientific Course includes all those studies which are required for admission to any polytechnic school.

COMMERCIAL CLASS.

Pupils who are able to spend but one or two years in school, and for that reason do not desire to enter upon one of the regular courses of study, are permitted under the direction of the Principal to select an equal amount of work from the regular studies with the addition of Book-keeping and to form a commercial class. The full Academic Course, although especially designed for those who intend to pursue the Collegiate Course, is nevertheless

recommended for those who are preparing for commercial life unless lack of preparation prevents its adoption.

PREPARATORY DEPARTMENT.

To meet the wishes of a large number of parents, a Preparatory Department has been organized for boys eight to eleven years of age. It is placed under the immediate charge of competent ladies, but is under the general supervision of the Principal of the Academy. Pupils are admitted to this Department as soon as they have sufficient knowledge of reading and writing to enable them to commence the study of Arithmetic and Geography.

PHYSICS.

The physical laboratory on the second floor of the building recently erected, is well supplied with apparatus to which additions are constantly being made. The laboratory is provided with lecture and working tables and affords abundant facilities for instruction by lectures and for practical work in experimental physics.

CHEMISTRY.

Excellent facilities are offered pupils for thorough instruction in general chemistry and qualitative analysis. The chemical laboratory is fitted with tables and apparatus for practical work, and instruction is given partly by recitation, partly by lectures, and partly by laboratory work.

DRAWING.

The drawing room is well lighted and furnished with drawing stands, models, and all necessary conveniences.

Free-hand and geometrical drawing may be taken, in addition to the regular studies, by the pupils of any class in which it is not already required. The Course in drawing may thus extend through a period of four years, beginning with the outlines and proportions of simple geometric figures, proceeding to the more complex and ornate forms of decorative art, and including the study of light and shade, with pencil and brush, both from the flat and the round, or the solid object. Geometrical drawing will include the use of instruments, scales, the more important problems in Plane Geometry, orthographic projections, intersections and development of surfaces, cast shadows, perspective, together with mechanical and architectural constructions.

GYMNASIUM.

On the first floor of the building recently erected is a large gymnasium, handsomely furnished with the most serviceable apparatus of modern pattern. Four sets of the larger apparatus are supplied, so that a class of sixty boys can all get sufficient exercise in a short time. Each class is sent to the gymnasium near the middle of the school session every day under the direction of a careful instructor. Every pupil unless physically disabled and regularly excused at the request of parent or physician is required to go with his class.

The object is to give a systematic physical training not only to those who enjoy athletic sports and would practice them of their own accord, but also to the large num-

ber who neglect bodily exercise, unless an opportunity is furnished them. The effect upon the health and bearing of the pupils, after a short trial, amply proves the wisdom of requiring daily gymnastics.

MONTHLY REPORTS.

Reports will be made of the attendance, deportment, standing and general progress of each pupil to which the attention of parents and guardians is specially invited.

Pupils are expected to prepare at home a part of the lessons assigned for each day, and their hours of study should be regular and free from interruption.

Every absence from the regular exercises of the school is a serious hindrance to the progress of the individual pupil and the class to which he belongs, and sickness or some urgent necessity should be regarded as the only legitimate excuse.

DIPLOMAS.

Diplomas will be conferred upon those members of the class who have taken any one of the regular courses of study, and have passed satisfactorily the required examinations. Certificates will also be given on the same conditions, which entitle graduates to enter the corresponding course in the College or School of Engineering of Washington University without examination.

The courses of study in the Academy include all the subjects required in the examinations for admission to

the best colleges and scientific schools. The methods of instruction are such as prevail in the oldest and most popular preparatory schools of New England. The increasing demand for a school of high grade in St. Louis has been fully met, so that parents need not send their sons away from home at the most critical period of their lives, in order to have them prepared to enter the college of their choice. Although the Academy is especially designed to prepares tudents for the Undergraduate Department of Washington University, and a majority of its graduates enter that department, the training they receive has proved amply sufficient to satisfy the requirements of any university.

TUITION.

Preparatory Class, per term of 20 weeks	\$50 00
First Year " " "	50 00
Second Year " " "	50 00
Third Year " " "	55 00
Fourth Year " " "	62 50
Fifth Year " " "	75 00
Sixth Year " " "	75 00
Commercial " " "	75 00

These rates are for the current year only.

Bills are payable in advance.

No extra charge of any kind will be made.

N. B.—No pupil will be received for less than one term, and no abatement will be made for absence whether such absence occurs at the beginning, middle, or end of the term.

GENERAL INFORMATION.

The School year consists of two terms of twenty weeks each. The Academy does not furnish text-books, but each pupil must provide for himself the books and necessary articles prescribed for the class to which he belongs.

The Academy has no dormitory system, but rooms and board for boys whose homes are not in the city may be obtained in private families at prices ranging from \$20 to \$30 a month. The Principal of the Academy will cheerfully give recommendations and assistance to parents who desire to obtain for their sons rooms and board in the city.

COURSES OF STUDY.

CLASSICAL COURSE.

FIRST YEAR CLASS.

Mathematics — Robinson's Complete Arithmetic beginning at Percentage; Stoddard's Mental Arithmetic.

History — Eggleston's History of the United States.

French — Paul Bercy's *Livre Des Enfants*.

English — Longmans' Grammar, Composition and Dictation with John Gilpin's Ride, Christmas Carol, and Selections from Hawthorne and Irving.

Spelling, Penmanship, Drawing, Vocal Music, and daily exercise in the Gymnasium throughout the year.

SECOND YEAR CLASS.

FIRST TERM.

Latin — Allen and Greenough's Grammar; Tuell and Fowler's First Latin Book; or

* *German* — Collar's-Eysenbach's Grammar with Exercises.

Mathematics — Robinson's Complete Arithmetic.

History — Myer's General History.

English — Longmans' Grammar, Composition and Dictation with Gray's Elegy, Goldsmith's Deserted Village, and The Traveler.

Spelling, Penmanship, Drawing, Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Tuell and Fowler's First Latin Book, or

* *German* — Collar's-Eysenbach's Grammar; Prose Selections.

Mathematics — Wentworth's Elementary Algebra to Simple Equations.

History — Myer's General History completed.

English — Longmans' Grammar, Composition and Dictation with The Courtship of Miles Standish, Evangeline, and Dryden's Alexander's Feast.

THIRD YEAR CLASS.

FIRST TERM.

Latin — Cæsar's Gallic War, Books II., III.; Collar's Latin Composition. Roman History.

Greek — White's First Greek Book.

Mathematics — Elementary Algebra continued.

English — Curd's Analysis, Reading, Composition and Dictation with The Lays of Ancient Rome and The Alhambra.

Elocution.

Spelling, Drawing, Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cæsar's Gallic War, Books I., IV.; Collar's Latin Composition; Exercises in reading and writing Latin at sight. Roman History.

* German may be substituted for Latin by pupils who do not intend to pursue the full course of study in preparation for University or Scientific School.

Greek — White's First Greek Book continued.

Mathematics — Wentworth's Algebra completed.

English — Hill's Rhetoric. Reading. Composition and Dictation with Scott's Lady of the Lake and Ivanhoe.
Elocution.

FOURTH YEAR CLASS.

FIRST TERM.

Latin — Cicero, four orations against Catiline; Latin Composition; Exercises in reading and writing Latin at sight.
Roman History.

Greek — Xenophon's Anabasis; Prose Composition.

Mathematics — Plane Geometry with original exercises.

German — Collar's-Eysenbach's Grammar with Exercises.

French — Chardenal's Complete Course.

English — Composition and Dictation with Pope's Translation of the Iliad, Books I., VI., XXII., and XXIV.; Dryden's Palamon and Arcite; Goldsmith's Vicar of Wakefield.
Elocution.

Spelling, Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cicero, orations for Manilian Law, Archias and Marcellus; Cornelius Nepos; Latin at sight; Latin Composition
Roman History.

Greek — Xenophon's Anabasis continued; Prose Composition.

Mathematics — Wentworth's Plane Geometry completed.

German — Collar's-Eysenbach's Grammar; Prose selections.

French — Chardenal's Complete Course; Prose Selections.

English — Composition and Dictation with DeQuincey's Flight of a Tartar Tribe; Lowell's Vision of Sir Launfal; Cooper's Last of the Mohicans.

Elocution.

FIFTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Aeneid*, Books I., II., III.; Latin Composition; Exercises in reading and writing Latin at sight. Roman History.

Greek — Xenophon's *Anabasis*. Selections from *Hellenica* or *Cyropedia*, and other Attic Prose; Prose Composition.

Mathematics — Higher Arithmetic, including metric system, and higher Algebra, in connection with Mathematical Reviews.

German — Grammar; Prose Selections; Sight Translations.

French — Chardenal's Complete Course; Super's Reader. Sight Translations.

English — Composition and Dictation with Goldsmith's *Vicar of Wakefield*; Pope's Translation of the *Iliad*, Books I., VI., XXII., and XXIV.; The Sir Roger de Coverley Papers in the *Spectator*; Coleridge's *Ancient Mariner*. Elocution.

Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cicero reviewed; Cæsar, Nepos, and Sallust at sight; Latin Composition. Roman History.

Greek — Reading at sight; Prose Composition; Reviews.

Mathematics — Higher Algebra and Plane Geometry with original exercises in connection with Mathematical Reviews.

German — Grammar; Prose Selections; Sight Translations.

French — Chardenal's Complete Course; Super's Reader. Daudet (*Centes Choisis*).

English — Composition and Dictation with Hawthorne's *House of Seven Gables*; Lowell's *Vision of Sir Launfal*; Cooper's *Last of the Mohicans*; Dryden's *Palamon and Arcite*; De Quincey's *Flight of a Tartar Tribe*.

Elocution.

SIXTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Æneid*, IV., V., VI.; Ovid at sight; Latin Composition. Roman History.

Greek — Selections from Herodotus; Homer's *Iliad*; Reading at sight; Prose Composition. Pennell's *History of Greece*.

Physics — With laboratory work.

English — Composition and Dictation with Burke's Speech on Conciliation with America and Tennyson's Princess. Elocution. Vocal Music and daily exercise in Gymnasium throughout the year.

SECOND TERM.

Latin — Virgil's Eclogues; Cicero and Virgil at sight; Exercises in writing Latin at sight. Roman History.

Greek — Herodotus and Homer at sight; Prose Composition; Reviews.

Pennell's History of Greece.

Physics — With laboratory work.

English — Composition and Dictation with De Quincey's Flight of a Tartar Tribe; Shakespeare's Macbeth. Elocution.

COURSE WITHOUT GREEK.

THIRD YEAR CLASS.

FIRST TERM.

Latin — Caesar's Gallic War, Book II., III; Collar's Latin Composition.

Roman History.

German — Collar's Eysenbach's Grammar with exercises.

Mathematics — Wentworth's Elementary Algebra.

History — Montgomery's History of England.

English — Curd's Analysis; Reading; Composition and Dictation with the Lays of Ancient Rome and The Alhambra.

Elocution.

Spelling, Drawing, and Vocal Music with daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cæsar's Gallic War, Books I., IV.; Collar's Latin Composition. Exercises in reading and writing Latin at sight; Roman History.

* *German* — Collar's-Eysenbach's Grammar; Prose selections.

Mathematics — Wentworth's Elementary Algebra completed.

English Literature — Painter's.

English — Hill's Rhetoric. Reading. Composition and Dictation with Scott's Lady of the Lake and Ivanhoe. Elocution.

FOURTH YEAR CLASS.

FIRST TERM.

Latin — Cicero, four Orations against Catiline; Latin Composition; Exercises in reading and writing Latin at sight. Roman History.

Mathematics — Plane Geometry with original exercises.

English Literature — Ainsworth's.

French — Chardenal's Complete Course.

German — Collar's-Eysenbach's Grammar. Prose selections.

English — Composition and Dictation with Pope's Translation of the Iliad, Books I., VI., XXII., and XXIV.; Dryden's Palamon and Arcite; Goldsmith's Vicar of Wakefield. Elocution.

Spelling; Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cicero, orations for Manilian Law, Archias, and Marcellus; Cornelius Nepos; Latin at sight; Latin Composition. Roman History.

Mathematics — Plane Geometry completed.

German — Collar's-Eysenbach's Grammar; Prose selections.

* German may be substituted for Latin by pupils who do not intend to pursue the full course in preparation for University or Scientific School.

French — Chardenal's Complete Course; Prose selections.

History — Fiske's History of the United States.

English — Composition and Dictation with DeQuincey's Flight of a Tartar Tribe; Lowell's Vision of Sir Launfal and Cooper's Last of the Mohicans.

FIFTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Aeneid*, Books I., II., III.; Latin Composition; Exercises in reading and writing Latin at sight. Roman History.

Mathematics — Higher Arithmetic, including metric system, and higher Algebra in connection with Mathematical Reviews.

Chemistry — With laboratory work.

German — Grammar; Prose selections; Sight Translations.

French — Chardenal's Complete Course. Super's Reader. Sight Translations.

English — Composition and Dictation with Goldsmith's Vicar of Wakefield; Pope's Translation of the Iliad, Books I., VI., XXII. and XXIV.; Sir Roger de Coverley Papers in the Spectator; Coleridge's Ancient Mariner.

Elocution.

Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cicero reviewed; Cæsar, Nepos, and Sallust at sight; Latin Composition. Roman History.

Mathematics — Higher Algebra and Plane Geometry in connection with Mathematical Reviews.

Chemistry — With laboratory work.

French — Chardenal's Complete Course. Le Conscrit; Columba; Daudet (*Contes Choisis*).

German — Grammar; Prose selections; Sight Translations.

English — Composition and Dictation with DeQuincey's Flight of a Tartar Tribe; Hawthorne's House of Seven Gables;

Lowell's Vision of Sir Launfal; Cooper's Last of the Mohicans; Dryden's Palamon and Arcite.
Elocution.

SIXTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's *Aeneid*, IV., V., VI ; Ovid at sight; Latin Composition; Roman History.

Physics — With laboratory work.

French — Chardenal's Complete Course; Super's Reader; Le Roman d'un Jeune Homme Pauvre; Daily translation of English into French.

German — Prose Selections; Daily translation of English into German.

History — Pennell's History of Greece.

English — Composition and Dictation with Burke's Speech on Conciliation with America and Tennyson's Princess.

Elocution.

Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Virgil's Eclogues; Cicero and Virgil at sight; Exercises in writing Latin at sight; Roman History.

Physics — With laboratory work.

French — Chardenal's Complete Course. Le Conscrit. Daudet (Contes Choisis). Daily translation of English into French.

German — Prose selections; Sight translations.

History — Pennell's History of Greece.

English — Composition and Dictation with De Quincey's Flight of a Tartar Tribe; Shakespeare's Macbeth.

Elocution.

PREPARATORY SCIENTIFIC COURSE.

FOURTH YEAR CLASS.

FIRST TERM.

Latin — Cæsar's Gallic War, Books II., III.; Collar's Latin Composition. Roman History.

Mathematics — Plane Geometry with original exercises.

English and American Literature — Ainsworth's.

French — Chardenal's Complete Course; Prose selections.

German — Collar's-Eysenbach's Grammar with exercises.

Drawing — Freehand and Geometrical.

English — Composition and Dictation with Pope's Translation of the Iliad Books I., VI., XXII., and XXIV.; Dryden's Palamon and Arcite; Goldsmith's Vicar of Wakefield.

Elocution.

Spelling, Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cæsar's Gallic War, Books I., IV.; Collar's Latin Composition; Exercises in reading and writing Latin at sight. Roman History.

Mathematics — Plane Geometry completed.

History — Fiske's History of the United States.

French — Chardenal's Complete Course; Prose selections; or

German — Collar's-Eysenbach's Grammar; Prose selections.

English — Composition and Dictation with DeQuincey's Flight of a Tartar Tribe; Lowell's Vision of Sir Launfal; Cooper's Last of the Mohicans.

Elocution.

FIFTH YEAR CLASS.

FIRST TERM.

Latin — Virgil's Æneid, Books I., II., III.; Latin Composition; Exercises in reading and writing Latin at sight. Roman History.

Mathematics — Trigonometry; Higher Arithmetic, including Metric System, and higher Algebra in connection with Mathematical Reviews.

Physics and Chemistry — With laboratory work.

French — Chardenal's Complete Course. Prose selections Super's Reader.

German — Grammar; Prose selections; Sight Translations.

Drawing — Geometrical.

English — Composition and Dictation with Pope's Translation of the Iliad, Books I., VI., XXII., and XXIV.; Goldsmith's Vicar of Wakefield; Southey's Life of Nelson; Sir Roger de Coverley Papers in the Spectator; Lowell's Vision of Sir Launfal.

Elocution.

Vocal Music and daily exercise in the Gymnasium throughout the year.

SECOND TERM.

Latin — Cæsar, Nepos and Sallust at sight; Latin Composition. Roman History.

Mathematics — Solid Geometry; Higher Algebra and Plane Geometry in connection with Mathematical Reviews

Physics and Chemistry with laboratory work.

French — Chardenal's Complete Course; Le Conscript; Colomba; Daudet (Contes Choisis); Prose Composition, or

German — Grammar; Prose selections; Sight Translations.

Drawing — Geometrical.

English — Composition and Dictation with Coleridge's Ancient Mariner; Milton's Paradise Lost, Books I. and II.; Hawthorne's House of Seven Gables; Carlyle's Essay on Burns; Burke's Speech on Conciliation with America; Shakespeare's Macbeth; DeQuincey's Flight of a Tartar Tribe; Tennyson's Princess.

Elocution.

For further information address Chas. P. Curd, Principal of Smith Academy, or the Secretary of Washington University.

MARY INSTITUTE.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1896-97.

SCHOOL ORGANIZED, Thursday, September 24.

HOLIDAY, THANKSGIVING DAY, Thursday, November 26.

CHRISTMAS VACATION, December 24, 1896, to January 1, 1897,
inclusive.

SECOND TERM begins Monday, February 1.

UNIVERSITY HOLIDAY, Friday, May 14.

FIRST ENTRANCE EXAMINATION, Saturday, June 5.

GRADUATING EXERCISES, Friday, June 11.

VACATION, June 12 to September 22, inclusive.

1897-98.

ENTRANCE EXAMINATION, Tuesday and Wednesday, September
21 and 22.

SCHOOL ORGANIZED, Thursday, September 23.

HOLIDAY, THANKSGIVING DAY, Thursday, November 25.

CHRISTMAS VACATION, December 24 to January 1, inclusive.

SECOND TERM begins Monday, February 7.

OFFICERS
OF
INSTRUCTION AND GOVERNMENT.

RESIDENCE.
WINFIELD S. CHAPLIN, LL.D.,
Chancellor of the University 3636 Pine st.
EDMUND H. SEARS, A. B., Principal 8529 Bell av.

ACADEMIC DEPARTMENT.

MISS LUCY E. SMITH, Assistant to
the Principal 3729 Delmar av.
MISS MARIA V. BEDINGER, A. B.,
Chemistry and Physics 3509 Morgan st.
MISS ANNA L. BRANCH, A. B., Mathe-
matics and History 4314 Washington av.
MISS ELLEN C. CLARK, Geography
and Natural Science 2730 Pine st.
MISS MARY G. CUMMINGS, Ph. B.,
Rhetoric and English 3514 Olive st.
MRS. SARAH G. HAYES, Mathemat-
ics and History 2813 Stoddard st.
MISS L. BEAUMONT IRWIN, French 3644 Olive st.
***MISS LOUISE D. KUEFFNER**, A. M.,
German 2800 Russell av.
MISS JENNIE R. LIPPMAN, A. M.,
Latin 5555 Cabanne pl.
MISS ALICE L. MARTIN, A. B., Greek
and English 2704 Pine st.
MISS CAROLINE W. MUDGETT,
English Literature 3509 Morgan st.
MISS ESTHER DeB. PETTIBONE,
Arithmetic and English Composition. 3807 Delmar av.
MADAME EMMA RUPPIN, French and
German 2936 Locust st.

* On leave of absence.

RESIDENCE.

MISS CLARA SESSINGHAUS, Ph. B.,
 German 2901 Rauschenbach av
 MISS SARAH C. SOUTHER, Cooking 4048 Westminster pl.
 MISS VIRGINIA E. STEVENSON,
 History 3509 Morgan st.
 MR. EDWARD P. PERRY, Elocution. 4953 Fountain av.

PREPARATORY DEPARTMENT.

MRS. ANNIE L. McCARGO, Principal 5415 Bartmer av.
 MISS IDA J. ALVORD, English
 Branches 3139 Lucas av.
 MISS SERAPH E. BROWN, English
 Branches 2828 Washington av.
 MISS BARBARA COUSLAND, English
 Branches 4428 Delmar av.
 MISS NELLIE M. CURTIS, French
 and German 4038 Delmar av.

PRIMARY DEPARTMENT.

MISS MARGARET T. WALLACE,
 Principal 2930 Laclede av.
 MISS NELLIE M. CURTIS, French 4038 Delmar av.
 MISS SOPHIE DESLOGE, English
 Branches 5 Benton pl.

IN ALL DEPARTMENTS.

MISS ELIZABETH BUTLER, Drawing 6706 Virginia av.
 MISS ELEANOR H. KIRK, Penmanship 2828 Washington av.
 MISS ALICE L. MARTIN, A. B., Calligraphy 2704 Pine st.
 MISS SARAH M. MILLS, Drawing 2926 Eads av.
 MISS ESTHER DEB. PETTIBONE,
 Singing 3807 Delmar av.
 MR. AUGUST H. MUEGGE, Gymnastics 2712 Franklin av.

OUTLINE OF STUDIES IN PREPARATORY CLASSES.

Reading: Andersen's Tales; Ruskin's King of the Golden River; Stories from American History; Palgrave's Children's Garland. Word by Word Speller. 4.	Prince's Arithmetic by Grades. (Review of the Four Rules; Common Fractions.) Stoddard's Mental Arithmetic.	Geography: South America and Europe. Map Drawing. Natural Sciences.	French or German. (Oral.)
Reading: Francillon's Gods and Heroes; Giliver's Travels; Selections from Poetry. Word by Word Speller. 3.	Prince's Arithmetic by Grades. (Decimals.) Stoddard's Mental Arithmetic.	Geography: Europe and Asia. Map Drawing. Natural Science.	French or German. (Simple reading with beginnings of Grammar.) Oral exercises.
Reading: Morris's Historical Tales; Pilgrim's Progress; Chesterfield's Letters; Lang's Blue Poetry Book; Longfellow. Word by Word Speller. Grammar. 2.	Prince's Arithmetic by Grades. (Measurements.) Stoddard's Mental Arithmetic.	Geography: Africa, Australia, and general review. Map Drawing. Natural Science.	French: Chardenal, through lesson 50. Rollin's French Reader. German: Simple text, and elementary grammar.
Reading: The Iliad; the Odyssey; the Aeneid; Miles Standish; Evgeline; Lang's Blue Poetry Book; Ward by Ward Speller. Compositions. Grammar. 1.	Prince's Arithmetic by Grades. (Percentage.) Stoddard's Mental Arithmetic.	Eggleston's History of the United States.	French: Eggleston's History of the United States.

Pennmanship, Drawing, Vocal Music, each twice a week.
Callisthenics, daily twenty minutes.
No change of text-book applies to classes already supplied with former book.

OUTLINE OF STUDIES IN ACADEMIC CLASSES.

Reading from various authors.	Arithmetic, Completed; Elementary Physics.	History of England.	General Review of Geography.	Modern Language.*
V. Spelling, with definitions and synonyms. Lockwood's Lessons in English. Composition.				
Readings from American authors.	Algebra.	History of England. History of France.	Physicalogy.	Latin.* Modern Language.*
IV. Definitions, synonyms and derivations. Composition.				
English Literature; Chaucer, Spenser and Elizabethan Prose. Composition.	Algebra, with review exercises. (One term.)	History of the United States 1789-1897. Ancient History.	Botany. Geology.	Latin.* Modern Language.* Greek.*
III. Shakespeare and Milton. Rhetoric. Composition.				
English Literature; the 18th and 19th Century Poets and prose writers. Composition.	Plane Geometry with original exercises.	Solid Geometry.	Physics. Greek.*	Latin.* Modern Language.*
I. Drawing and Vocal Music, each twice a week. Penmanship in V. class, twice a week; in IV. class, once. Calligraphy, daily, fifteen minutes. All studies in Italics are elective.	Mythology. Medieval and Modern History.* Psychology.	Plane Trigonometry.*	Domestic Science.* Latin.* Astronomy.* Chemistry.*	Latin.* Modern Language.* Greek.*

SPECIAL REMARKS.

FOUNDATION AND EQUIPMENT.

The Mary Institute was founded under the provisions of the University Charter in 1859, a commodious building being erected on Lucas Place, at an expense of \$25,000.

In 1878, the school having quite outgrown the existing accommodations, the present structure was erected on the corner of Locust and Beaumont streets, at a cost of \$70,000. Its halls are broad, the stairways rise at an easy grade, the ceilings are high, and the rooms are well lighted and ventilated. The building contains a gymnasium, a calisthenic hall, a large apartment for drawing, and an ample number of recitation rooms to accommodate four hundred pupils.

The school is well supplied with apparatus, has a good reference library, and excellent sanitary appointments. A proper temperature is carefully maintained in all the rooms, a trained employee being specially charged with this task.

During recess a warm luncheon is served in the basement at moderate cost to such pupils as may desire it.

HEALTH AND PHYSICAL CULTURE.

Health is always considered more important than intellectual growth, and care is taken that pupils shall not be put to any undue strain, either mental or physical. Unnecessary stair-climbing is carefully avoided. Girls in

the Primary Department are obliged to mount the stairs only for morning devotions and calisthenics ; those in the Preparatory, only for those exercises, and twice a week for singing and drawing. Academic pupils are kept on the second and third floors, and are not required to return to the first floor until dismissal. Parents who find that their daughters are overworked are earnestly requested to make it known to the principal.

Calisthenic Exercises occur daily in each class. The hours for the exercises are arranged near the middle of the program, thus affording relaxation between the morning and afternoon recitations. Besides the regular training in Calisthenics, special attention is given to the formation of good habits of movement and posture. Occasional lectures on physical culture are given in the upper classes. Two days in every week there is an optional course in the gymnasium after regular school hours.

GENERAL PLAN AND PURPOSE OF THE SCHOOL.

It is the aim of the Institute both to fit girls for college and to give to such as do not wish for a collegiate training as complete and thorough an education as a school can provide. To this end instruction is given in all studies that best contribute to a girl's intellectual development. As far as is possible, an even balance is kept between such varying branches as the languages, science, literature, history, and mathematics ; but some election is allowed, in order that individual tastes may be encouraged, and greater interest awakened. Drawing and singing receive proper attention. There are no extra charges in any department.

ADMISSION.

The dates of entrance examinations in Spring and Autumn, for the following session, are given in the calendar, on p. 3. For younger pupils the examinations are oral, conducted privately and only to such extent as to satisfy the examiner of the applicant's proper place in the school. For admission to the higher class examinations are in writing. Pupils who are to enter in the Autumn may be examined in the preceding Spring on all, or any, of the necessary subjects, due credit being given for the work done at this examination.

In order to enter the Academic Department a pupil must pass a fair preliminary examination in the following subjects:—

English Dictation (as a test of writing and spelling).

Arithmetic, including decimal and common fractions, denominate numbers, percentage, simple interest, and bank discount.

Geography, so much as is contained in an ordinary textbook.

English Grammar, through the parsing and analysis of simple sentences, and including participial and infinitive constructions.

United States History, so much as is contained in Eggleston's work.

TERMS.

Primary Department, per term of 18 weeks	\$35 00
Fourth Preparatory Class " " "	40 00
Third " " " "	45 00
Second " " " "	50 60
First " " " "	50 00
Fifth Academic " " " "	55 00
Fourth " " " "	60 00
Third " " " "	70 00
Second " " " "	80 00
First " " " "	80 00

These charges are subject to change by vote of the Board of Directors.

No extras will be charged.

No pupil will be received for less than one term, and no abatement in tuition will be made for absence, whether such absence occur at the beginning, middle or end of the term.

Graduates of Mary Institute are admitted to any studies of the course upon payment of an entrance fee of fifteen dollars.

BOARD.

Upon application, effort will be made to find board in good families on reasonable terms. Any persons willing to take young ladies as boarders are requested to leave their address with some member of the Faculty.

For more particular information in respect to Mary Institute, reference may be made to the Principal or to any of the Faculty or to the Secretary of Washington University.

THE MANUAL TRAINING SCHOOL.

MANAGING BOARD OF THE MANUAL TRAINING SCHOOL.

EDWIN HARRISON, *Chairman* . . . 3747 Westminster pl.
HENRY W. ELIOT 2635 Locust st.
SAMUEL CUPPLES 3673 Pine st.
WILLIAM L. HUSE 9 Westmoreland pl.
HENRY C. HAARSTICK Russell & Louisiana avs.
E. C. SIMMONS 21 Westmoreland pl.
WM. H. DANFORTH* (Class of 1887) 5625 Cates av.
W. S. CHAPLIN, *Chancellor* . . . 3636 West Pine st.

C. M. WOODWARD,

Secretary.

Office at the University.

* One member of this Board is elected annually by the Alumni Association, at its Banquet in June.

OFFICERS AND TEACHERS.

- W. S. CHAPLIN, LL.D., Chancellor . 3686 West Pine st.
C. M. WOODWARD, Ph. D., Director. 3018 Hawthorne bv'd.
GEORGE W. KRALL, Assistant in Charge
of Third-Year Class, and Teacher of
Physics and Literature 4001 Olive st.
CHARLES H. SPOONER, A. B., Assist-
ant in Charge of Second-Year Class,
and Teacher of English and Mathe-
matics 26 Nicholson pl.
WM. R. VICKROY, Ph. B., Assistant
in Charge of First-Year Class, and
Teacher of Algebra and English . . . 3029 Washington av.
CHARLES E. JONES, Instructor in
Forging and Auditor of Shop Accounts 2914 University st.
OSCAR W. RAEDER, Instructor in
Drawing 2227 Warren st.
GEORGE B. SWAFFORD, Instructor in
Wood-work 5910 Theodosia av.
MARIAN E. COX, Ph. B., Instructor in
Chemistry and History 2127 Oregon av.
GEORGE ARROWSMITH, Instructor in
Wood-work and Molding 7024 Stanley av.
JANET C. GLOSS, Ph. M., Instructor
in Modern Languages 2828 Washington av.
CLARA L. WOODWARD, Instructor in
Latin and English 3013 Hawthorne bv'd.
CHARLES N. MCFARLAND (Graduate,
Class 1892), Instructor in Machine-Shop
Practice 1204 Goodfellow av.
WILLIAM H. ALLEN, A. B. (Graduate,
Class 1890), Instructor in Mathematics
and Civics 3839 Russell av.

HERMANN VON SCHRENK, A. M., Instructor in Biology and Botany . . . 48 Nicholson pl
WILLIS HENRY GROCOTT, E. E.
(Graduate, Class of 1891), Instructor in Drawing 1812 Coleman st.

ORGANIZATION.

The MANUAL TRAINING SCHOOL is a secondary or preparatory school between the District or Grammar School on the one hand, and the Engineering or Polytechnic School on the other. It was organized to effect several ends:

1. To furnish a broader and more appropriate foundation for higher technical education.
2. To serve as a developing school where pupils could discover their inborn capacities and aptitudes, whether in the direction of literature, science, or the practical arts, while securing a liberal elementary training. Its usefulness is by no means limited to those who have a fondness for mechanics. Its training is of general educational value.
3. To furnish those who look forward to industrial life opportunity to become familiar with tools, materials, drafting, and the methods of construction, as well as with ordinary English branches.

The ordinance establishing the MANUAL TRAINING SCHOOL was adopted by the Board of Directors of the University, June 6, 1879.* The ordinance declared:—

* Shop-work had already been maintained for seven years among the classes of the Engineering School in buildings on the University grounds.

"The students will divide their working hours, as nearly as possible, equally between mental and manual exercises. They shall be admitted, on examination, at not less than fourteen years of age, and the course shall continue three years."

On September 6, 1880, the school opened with a single class of about 50 pupils. It is accordingly now in its **SEVENTEENTH YEAR**.

During the summer of 1882, the large addition fronting on Washington avenue was built and furnished; this nearly doubled the capacity of the school.

CONDITIONS OF ADMISSION.

Candidates for admission to the First-Year class must be at least fourteen years old, and each must present a certificate of good moral character signed by a former teacher.

They must also, unless presenting diplomas as explained below, pass a good examination on the following subjects:—

1. Arithmetic, including the fundamental rules; common and decimal fractions; the tables of weights, measures, and their use; percentage; interest; and analysis of miscellaneous problems. Candidates will be examined orally in mental arithmetic.
2. Common School Geography, including map-drawing from memory.
3. Spelling and Penmanship.

4. The writing of good descriptive and narrative English, with the correct use of capitals and punctuation.
5. Reading aloud with distinctness and correct expression.
6. The History of the United States.

Candidates for the Second-Year class must be at least fifteen years old. All that is specified above will be required of them, and, in addition, the studies of the First-Year class.

Similar advanced requirements apply to those desiring to enter the Third-Year class.

ALL PUPILS ARE ADVISED TO TAKE THE FULL COURSE.

All pupils are advised to enter the First-Year class rather than to aim to save a year's expense by waiting to enter the Second Year. The drawing and shopwork of the First Year cannot fully be made up, and the boy who skips the first year is more or less handicapped in all the subsequent work. *A pupil cannot as a rule recite with one grade and work in the shop with another.*

CERTIFICATES.

When candidates can present diplomas showing that they have completed a *thorough* course of study preparatory to a high school, or have done satisfactory work in a high school or school of equal grade, they may be admitted without examination.

Occasionally boys living at a distance from St. Louis are examined at their homes, on questions furnished by the Director.

Vacancies may be filled *at any time*, provided the applicants are prepared to enter existing classes.

A MID-YEAR CLASS.

A new and complete class will be admitted to the school at the end of the First Term in January, 1897. A special examination will be held on

SATURDAY, JANUARY 30, 1897.

Candidates having certificates of promotion to first-grade high schools can enroll at any time by presenting their certificates. All others will be examined as explained above.

The Mid-Year class will begin the studies of Algebra, Botany, Latin (or English Grammar), English Literature, Drawing, and Joinery.

ENTRANCE EXAMINATIONS IN JUNE AND SEPTEMBER.

A second examination of candidates for admission will be held at the school on Thursday, June 17, beginning at nine o'clock. A third examination will be held on Friday, September 17.

The scope of the examinations for admission is best shown by old examination papers, which will be sent by mail on application.

THE COURSE OF INSTRUCTION

covers three years, and embraces five parallel lines — as follows:—

First — A course of pure Mathematics, including Mental Arithmetic, Algebra, Geometry, and Plane Trigonometry.

Second — A course in Science, including Zoology, Botany, Chemistry, and Physics, all with laboratory practice.

Third — A course in Language and Literature, including English, Latin, French or German, Spelling, Rhetoric, Composition, Literature, English and Ancient History, and the elements of Civics and Political Economy.

No student takes all this work but he selects one language and one literature course each year.

Fourth — A course in Vertical Penmanship, Free-hand and Instrumental Drawing.

Fifth — A course of Tool Instruction, including Joinery, Wood-Carving, Wood-Turning, Molding, Pattern-Making, Soldering, Forging, and Bench and Machine Work in Metals.

The arrangement of studies, tool-work, etc., by years is substantially as follows. No pupil is permitted to omit studies or exercises which he may not like, nor can he take shopwork in advance of his academic grading.

[An "hour" generally means 50 minutes]

FIRST YEAR.

ALGEBRA: *Three hours a week for the year.* Fundamental processes, factoring, fractions, equations of one and of two unknown quantities, and problems involving the same.

Text-book: Wells's Academic Algebra.

MENTAL ARITHMETIC: *One hour a week for the year.* Special attention to the use of fractions.

Text-book: Stoddard's Intellectual Arithmetic.

THEMES: *Five hours a week for one term.* A one-page theme four times a week, and a long theme, with "brief" for the same, once a week on subjects chosen principally by the pupils from observation or from experience.

ENGLISH HISTORY: *Five hours a week for one term.* From the Beginnings through the Georges.

Text-book: "Leading Facts of English History."

Or LATIN (if the student is well prepared in English): *Five hours per week for the year.* Latin, Grammar and Reader.

LITERATURE: *One hour a week for the year.* A study of a few typical early English ballads, some of Wordsworth's lyrics, Shakespeare's Macbeth, and George Eliot's Silas Marner with a view to cultivate an ability to appreciate literature. (The boys taking Latin, write and revise one theme a week in connection with this study.)

BIOLOGY: *Five hours a week for sixteen weeks.* The study of Typical Animal forms, their structure and habits. Reference Book: Burnet's "School Zoology." All instruction is given in the biological laboratory, and the pupils study actual specimens of insects, fishes or animals, with the aid of magnifying glasses and instruments. Drawings and written descriptions are required of all pupils.

KINDS AND USES OF WOOD: *Fifteen exercises.*

BOTANY: *Five hours a week for fifteen weeks.* A study of the growth and structure of plants.

Text-book: Bergen's "Elements of Botany."

FREE-HAND DRAWING: *Five hours a week for fourteen weeks.* Projection of points, lines, and solids in space; lettering in many different alphabets; and elements of surface decoration.

INSTRUMENTAL DRAWING: *Five hours a week for twenty-four weeks.* One sheet of straight lines and circular arcs in an interlaced design; one of line shading; and two sheets of machinery details from free-hand sketches. The preparation of drawings for the exercises in woodwork.

JOINERY: *Ten hours a week for fourteen weeks.* The use of the different hand tools, and the making of simple joints.

WOOD CARVING: *Ten hours a week for five weeks.* The use of carving tools in ornamental line work and the shaping of simple designs in low relief.

WOOD-TURNING: *Ten hours a week for nineteen weeks.* Face-plate and center turning. Polishing and simple designing

SECOND YEAR.

ALGEBRA: *Five hours per week for twenty weeks.* The use of fractional exponents, reduction and combination of radicals, the solution of quadratic equations and equations containing radicals. The graphical interpretation of equations of first and second degrees is considered, and simultaneous values are illustrated.

GEOMETRY: *Five hours per week for twenty weeks.* Five books of Wells's Geometry are thoroughly mastered. The ability to reason correctly is cultivated not only by standard demonstrations, but by numerous independent theorems and problems.

ENGLISH: *Five hours per week for twenty weeks.* Standard books in prose and poetry (Dickens, Goldsmith, Scott or Holmes) are carefully read and used as the basis of frequent themes.

HISTORY: *Four hours per week for twenty weeks.* English History for those who did not have it during the First Year; otherwise, Ancient History, especially Persian and Grecian.
Or LATIN (in place of English and History): Three Books of Cæsar or an equivalent of Latin prose.

Or FRENCH: *Five times per week.* Grammar — Witney's Practical French, La Langue Francaise (Bercy).

Or GERMAN: *Five times per week.* Grammar: Joynes-Meissner; Conversation — Fisher's Practical Lessons; Reading — Der Zerbrochens Krug (Zschokke).

COMPOSITION: *One hour a week for twenty weeks.* Themes written from field notes and observations among the industries of St. Louis.

CHEMISTRY: *Four hours per week for twenty or forty weeks* (as per electives). First term, sixty experiments are made and recorded by each student. Additional and more difficult experiments are made by the teacher and recorded by pupils. Second term, Remsen's Manual is completed by the class.

DRAWING: *Five hours per week for forty weeks.* Orthographic projections of intersecting solids and the development of

their surfaces; Tinting with brush; Free-hand Detail Sketches, and Instrumental drawings from the sketches; Isometric Drawing and Graining; Geometrical Drawing; Ornamental Lettering and Border Design.

PATTERN-MAKING AND MOULDING: *Ten hours per week for ten weeks.* Patterns made, molded, and cast in plaster; cores made and baked. The principles of soldering are acquired and sheet metal forms are produced.

FORGING: *Ten hours per week for thirty weeks.* All elementary processes of the forge are learned including welding iron, and forging and tempering a set of steel tools for each pupil. Projects of ornamental wrought iron or steel work.

THIRD YEAR.

GEOMETRY: *Five hours per week for thirty weeks.* Wells's solid Geometry is completed.

TRIGONOMETRY: *Five hours per week for about ten weeks.* The functions of angles and their relations studied. The formulæ for plane triangles derived and applied. The nature and use of logarithms.

PHYSICS AND LABORATORY PRACTICE: *Four hours per week for forty weeks.* Elementary principles illustrated and fundamental laws tested and interpreted by the use of apparatus especially constructed for this laboratory. On the basis of this work, general theories are developed and complex operations are discussed.

CIVICS AND POLITICAL ECONOMY: *Five hours per week for forty weeks.* The functions of municipal, State and national governments; the duties of the citizen and the officer. The structure of society, the nature and relations of industrial, commercial and educational institutions. Frequent themes and reports.

Or, **FRENCH:** *Five times per week.* Whitney's Practical French continued. Selected Readings, Sight-reading and Written Exercises.

Or, GERMAN: *Five times per week.* Grammar continued; Conversation; Der Einsiedler (Wilderthum); Sight-Reading—Selected.

LITERATURE: *One hour a week for forty weeks.* The reading of one of Shakespeare's plays, and the Study of Classic Myths.

DRAWING: *Five hours per week for forty weeks.* Higher geometrical drawing, conics, cycloids and helices; shades and shadows; house plans; brush shading and conventional drawing; orders of architectural ornament; sketching and project drawing.

TOOL-WORK: *Ten hours per week for forty weeks.* Metal work by machine and hand tools; the nature and uses of all the tools in the shop, in connection with exercises devised to bring out those uses. Each student takes part in the construction of a "project" or finished machine intended to embody a great range of tool practice and constructive skill.

THE DAILY PROGRAM.

The daily session consists of six periods of fifty minutes each, beginning at 9 A. M., and closing at 2:30 P. M., thirty minutes being allowed for lunch. Each pupil recites daily three lessons, which are for the most part learned at home. Each class consists of several "divisions" containing from twenty to twenty-five students each.

The order in which recitations and shop exercises follow each other is different with different divisions. Some begin work in the shop at nine o'clock, others at 10:40, and still others at 12:50.

CHARACTER OF THE TOOL WORK.

All the shop-work is disciplinary; special trades are not taught, nor are articles manufactured for sale; as a rule the products of the shop have no value except as they illustrate typical forms and methods. Occasionally *projects*, or "final" pieces of practical value are constructed which may belong either to the school or to the makers.

SHOPS, TOOLS, ETC.

The school has five large shops. Two are for wood-work, having 150 sets of cutting tools, 50 benches, and 50 special speed lathes driven by the main engine.

One is a molding room with benches, sand, flasks, &c., for twenty-four workmen. Pupils make their own patterns and cores, and generally cast with plaster.

The forging shop has 25 forges, anvils and full sets of tools. Each pupil learns all the fundamental processes of the forge while executing a carefully graded series of exercises in lead, iron and steel.

The machine shop has sixteen screw-cutting lathes, five speed lathes, two planers, two drills, a shaper, a dry and a wet emery grinder, a gas forge, a dozen vises and full sets of hand tools.

GENERAL INFORMATION.

Tuition fees.—The school year consists of two terms of twenty weeks each. The fee for each term is payable in advance. The rates for the present are as follows:—

First-Year Class, \$37.50 per term or \$75 per year.
Second-Year Class, \$50 per term or \$100 per year.
Third-Year Class, \$60 per term or \$120 per year.

Incidental Expenses and Board.—Pupils furnish their own books, drawing instruments and paper, their own aprons and overalls, and certain small pocket tools. The school furnishes shop tools and materials. Losses and breakages are charged to pupils when they are the result of carelessness. Books and drawing materials do not cost on an average more than \$10 per year. Board and lodging for those whose homes are out of the city can be obtained in private families for from \$18 to \$25 per month.

There is no opportunity in the school for the pupil to pay his way by labor.

The school has no lodging house, but the Director is always ready to recommend good homes to non-resident boys.

SCHOLARSHIPS.

The founders of the school desire that its advantages may be within the reach of boys from every class in the community. A few free, or partially free, scholarships will therefore be kept filled. It is desirable that they

should in general be given as rewards of merit to promising boys in straitened circumstances.

These scholarships are as a rule under the control of individual members of the Board of Managers. By special arrangement, single perpetual scholarships have been assigned to each of the following organizations:—

- The Kirkwood Public Schools.
 - The St. Louis Brotherhood of Stationary Engineers.
 - The National Association of Stationary Engineers.
 - The St. Louis Brotherhood of Locomotive Engineers,
- No. 48.

ALUMNI SCHOLARSHIPS.

An Alumni Scholarship has been established by the General Alumni Association.

Ten Alumni have also established a special scholarship which they have seen fit to name the "Woodward Scholarship."

A special illustrated catalogue giving in full all details of methods, the names of students, and the record of graduates, will be sent if asked for.

All inquiries and applications should be addressed to
C. M. WOODWARD, *Director,*
Manual Training School, St. Louis.
Or to GEO. M. BARTLETT,
Secretary of Washington University.

SUMMARY OF GRADUATES.

OF THE COLLEGE				184
OF THE SCHOOL OF ENGINEERING				168
OF THE LAW SCHOOL				565
OF THE MEDICAL COLLEGE				2,065
OF THE DENTAL COLLEGE				836
				—————
				3,317
HONORARY GRADUATES				12
				—————
				3,329

SUMMARY OF MEMBERS OF THE UNIVERSITY.

	^{~1895-96~} Stu. Instrs.	^{~1896-97~} Stu. Instrs.		
COLLEGE AND SCHOOL OF ENGINEERING	155	30	151	27
LAW SCHOOL	165	15	165	15
MEDICAL COLLEGE	114	33	85	33
DENTAL COLLEGE	101	17	99	17
	—————	—————	—————	—————
TOTAL GRADUATE AND UNDERGRADUATE DEPARTMENTS	535	95	500	92

PREPARATORY SCHOOLS.

SMITH ACADEMY	310	28	301	23
MARY INSTITUTE	361	29	353	29
MANUAL TRAINING SCHOOL	245	15	241	15
	—————	—————	—————	—————
	916	67	895	67
TOTAL GRADUATE, UNDERGRADUATE, AND PREPARATORY DEPARTMENTS	1,451	162	1395	159
SCHOOL OF FINE ARTS	872	13	274	11
	—————	—————	—————	—————
TOTAL CONNECTED WITH THE UNIVERSITY	1,823	175	1669	170

OFFICERS OF THE ALUMNI ASSOCIATIONS.

UNDERGRADUATE DEPARTMENT.

President: MR. WILLIAM H. BRYAN.

Vice-President: MR. THOMAS K. SKINKER.

Secretary and Treasurer: MR. THOMAS G. RUTLEDGE.

Executive Committee: MR. WILLIAM H. BRYAN, MR. THOMAS K. SKINKER, MR. THOMAS G. RUTLEDGE, MR. WESTERN R. BASCOME, MR. DANIEL N. KIRBY, MR. ANTHONY F. ITTNER.

LAW DEPARTMENT.

President: MR. WILLIAM E. GARVIN.

First Vice-President: MR. ISAAC H. ORR.

Second Vice-President: MR. EDGAR ROMBAUER.

Secretary: MR. DANIEL G. TAYLOR.

Treasurer: MR. HENRY S. CAULFIELD.

Executive Committee: MR. E. C. ELIOT, MR. CHARLES W. BATES, MR. CLARENCE S. TAUSSIG.

MEDICAL DEPARTMENT.

President: DR. E. C. RUNGE.

Vice-President: DR. JOSEPH GRINDON.

Secretary: DR. FLOYD STEWART.

Treasurer: DR. W. BAUMGARTEN.

Executive Committee: DR. JOSEPH GRINDON, DR. W. C. MARDORF, DR. E. H. GREGORY, JR., DR. V. P. BLAIR, DR. E. C. RUNGE.

DENTAL DEPARTMENT.

President: DR. J. G. HARPER.

Vice-President: DR. O. H. MANHARD.

Secretary: DR. J. B. KIMBROUGH.

Treasurer: DR. C. E. SCHUMACHER.

Executive Committee: DR. C. E. SCHUMACHER, DR. A. H. FULLER, DR. T. L. POEPPELING.

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WASHINGTON UNIVERSITY.



1897-98.

A CATALOGUE

OF THE

OFFICERS AND STUDENTS

IN

WASHINGTON UNIVERSITY

WITH THE

COURSES OF STUDY

FOR THE

ACADEMIC YEAR 1897-98.

ST. LOUIS:
H. FELDBUSH, PRINTER,
1898.

CALENDAR FOR 1898 and 6 MONTHS OF 1899.

1898

Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
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1899.

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UNIVERSITY CALENDAR.

1897-98.

ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 21-22.

ENTRANCE EXAMINATION to the Law School, Wednesday, Sep-
tember 22.

ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 21-22.

ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 21-22.

SCHOOL OF FINE ARTS opens Monday, September 20.

UNDERGRADUATE DEPARTMENT opens Thursday, September 23.

LAW SCHOOL opens Thursday, September 23.

MEDICAL COLLEGE opens Thursday, September 23.

DENTAL COLLEGE opens Thursday, September 23.

HOLIDAY, Thanksgiving Day, Thursday, November 25.

VACATION, December 24, 1897, to January 2, 1898, inclusive.

FIRST TERM ends Saturday, January 29.

SECOND TERM begins Monday, January 31.

HOLIDAY, Washington's Birthday, Tuesday, February 22.

MEDICAL COLLEGE closes Friday, April 22.

DENTAL COLLEGE closes Thursday, April 28.

COMMENCEMENT, Medical and Dental Colleges, Thursday,
April 28.

UNIVERSITY HOLIDAY, Friday, May 13.

EXHIBITION OF WORK of School of Fine Arts, June 7-9.

ENTRANCE EXAMINATION to the Undergraduate Department,
Monday and Tuesday, June 13-14.

COMMENCEMENT, Law School and Undergraduate Department,
Thursday evening, June 16.

VACATION, June 17 to September 22.

1898-99.

**ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 20-21.**

**ENTRANCE EXAMINATION to the Law School, Wednesday, Sep-
tember 21.**

**ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 20-21.**

**ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 20-21.**

SCHOOL OF FINE ARTS opens Monday, September 19.

UNDERGRADUATE DEPARTMENT opens Thursday, September 22.

LAW SCHOOL opens Thursday, September 22.

MEDICAL COLLEGE opens Thursday, September 22.

DENTAL COLLEGE opens Thursday, September 22.

HOLIDAY, Thanksgiving Day, Thursday, November 24.

VACATION, December 23, 1898, to January 2, 1899, inclusive.

FIRST TERM ends Saturday, January 28.

SECOND TERM begins Monday, January 30.

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HENRY HITCHCOCK.

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Office in University Building, 1704 Washington Avenue.

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* Arranged with the exception of the Chancellor in the order of appointment.

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Pharmacy 3838 Easton av.
LEWIS O. ATHERTON, B. S., Assistant
in Chemistry in the Medical
School..... 3033 Pine st.
GASTON DOUAY, Instructor in French.. 3435 Morgan st.
HERMAN VON SCHRENK, A. M., In-
structor in Botany 48 Nicholson pl.

GENERAL STATEMENT.

Washington University, founded in the city of St. Louis, under an Act of Incorporation by the State of Missouri, approved February 22, 1853, is intended to embrace the whole range of University studies except Theology, and to afford opportunity of complete preparation for every sphere of practical and scientific life.

By the eighth article of the Constitution, "no instruction, either sectarian or religious, or partisan in politics, shall be allowed in any department of the University; and no sectarian or partisan test shall be used in the election of professors, teachers, or other officers of the University for any purpose whatsoever. This article shall be understood as the fundamental condition on which all endowments, of whatsoever kind, are received." The Constitution also declares the article now quoted "not subject to alteration at any time;" but to guard against all encroachments in this important particular, the Directors have obtained from the General Assembly an amendment to the Charter, by which said article is incorporated in the same, and thereby placed beyond the power of any future Board of Directors. The Act of Amendment, approved February 12, 1857, declares:—

"SEC. 2. No instruction, either sectarian in religion, or partisan in politics, shall be allowed in any department of said University; and no sectarian or party

test shall be allowed in the election of professors, teachers, or other officers of said University; or in the admission of scholars thereto, or for any purpose whatever.

"SEC. 3. It shall be the duty of the Board of Directors of the said University, upon being informed of any violation of the second section of this Act, forthwith to institute an inquiry into the charge or charges that may be preferred, in respect thereof, by any credible person, in writing, against any officer of said University, and if it shall appear that any officer of said University has violated the second section of this Act, the Board of Directors shall forthwith remove any such person so offending from any office which he may then fill in any Department of said University; and such person so removed shall be forever thereafter ineligible to any office in said University.

"SEC. 4. In case the Board of Directors, upon being notified in writing, by any credible person, of a violation of the second section of this Act, shall refuse or neglect to investigate the charges thereupon preferred against any officer of said University, it shall be competent for the St. Louis Circuit Court, or the St. Louis Court of Common Pleas, to compel the Board of Directors, by *mandamus*, to perform their duty in investigating such charge, and to show their performance of such duty to the satisfaction of the Court having cognizance of the matter, and all proceedings under this section shall be summary, and conducted to a conclusion with as little delay as possi-

ble; and the power hereby given to said courts may be exercised by the judge of either of said tribunals in vacation."

On the 22d of April, 1857, the formal inauguration of Washington University took place with appropriate exercises in University Hall, and an oration delivered by Hon. Edward Everett, in the Mercantile Library Hall. An advanced scientific class was organized at that time. An Academy, now known as Smith Academy, had then been in operation about three years. The College and Mary Institute were organized in 1859, and the first Senior Class was graduated from the College in June, 1862. The Law School was organized in 1867, the Polytechnic School, now known as the School of Engineering, in 1870, the School of Fine Arts and the Manual Training School in 1879, the School of Botany in 1885. The St. Louis Medical College, founded in 1842, was admitted as a department of the University in 1891, and the Missouri Dental College in 1892.

To show the principle on which endowments are invited, the fifth, sixth and seventh articles of the Constitution are here inserted.

"ARTICTE V.

"ENDOWMENT OF PROFESSORSHIPS.

"Any person may endow in whole or in part a specified professorship in the said University; and if, in the opinion of the Board of Directors, said endowment shall be sufficient for the support of said profes-

sorship, said professorship shall bear the name of its founder forever, unless at the time of the endowment he shall otherwise direct.

"ARTICLE VI.

"ENDOWMENT OF DEPARTMENTS.

"Any person may found, by an adequate endowment, a specified department in said University; provided the plan of its organization and its purposes are approved by the Board of Directors, and if said endowment shall, in the opinion of said Board, be sufficient for the perpetual support of said department, it shall bear the name of the founder thereof forever, unless he shall otherwise direct at the time of endowing the same.

"ARTICLE VII.

"SPECIFIC FUNDS.

"All funds and property of whatever nature and description, contributed to the endowment or foundation of a professorship or department, shall forever be faithfully applied to the specific purpose for which contributed, and to no other object whatsoever, without the written consent of the donor or founder thereof, or his heirs and assigns, and also the written consent of two-thirds of the Directors first had and obtained; provided, however, that said funds and property in this article named shall never be diverted from the purposes of said University."

WASHINGTON UNIVERSITY

COMPREHENDS:

I. UNDERGRADUATE DEPARTMENT;

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

Washington Avenue and Seventeenth Street.

II. HENRY SHAW SCHOOL OF BOTANY.

1724 Washington Avenue.

III. ST. LOUIS SCHOOL OF FINE ARTS.

Nineteenth and Locust Streets.

IV. ST. LOUIS LAW SCHOOL..

1417 Locust Street.

V. ST. LOUIS MEDICAL COLLEGE.

1806 Locust Street.

VI. MISSOURI DENTAL COLLEGE.

1814 Locust Street.

The following schools have also been organized under the charter of the University:—

I. SMITH ACADEMY.

Washington Avenue and Nineteenth Street.

CHARLES P. CURD, A. M., *Principal.*

II. MARY INSTITUTE.

Locust and Beaumont Streets.

EDMUND H. SEARS, A. M., *Principal.*

III. MANUAL TRAINING SCHOOL.

Washington Avenue and Eighteenth Street.

CALVIN M. WOODWARD, Ph. D., *Director.*

For particulars in regard to these schools see special catalogues, to be had on application to the Principals or Director.

UNDERGRADUATE DEPARTMENT.

THE COLLEGE.

THE SCHOOL OF ENGINEERING.

UNDERGRADUATE DEPARTMENT.

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

PROFESSORS.

WINFIELD S. CHAPLIN,
Chancellor.

SYLVESTER WATERHOUSE,
Professor of Greek.

CALVIN M. WOODWARD,
Professor of Mathematics and Applied Mechanics.

GEORGE E. JACKSON,
Professor of Latin.

MARSHALL S. SNOW,
Professor of History, and Dean of the College.

FRANCIS E. NIPHER,
Professor of Physics.

EDMUND A. ENGLER,
*Professor of Mathematics and Descriptive Geometry, and Dean
of the School of Engineering.*

Professor of Mathematics and Astronomy.

JOHN B. JOHNSON.

Professor of Civil Engineering.

WILLIAM TRELEASE,

Professor of Botany.

CHARLES R. SANGER,

Professor of Chemistry.

JAMES MAIN DIXON,

Professor of English.

OTTO HELLER,

Professor of German.

JOHN H. KINEALY,

Professor of Mechanical Engineering.

GUSTAV HAMBACH,

Adjunct-Professor of Geology.

HENRY AUGUST HUNICKE,

Adjunct-Professor of Applied Chemistry.

INSTRUCTORS.

HOLMES SMITH,
Instructor in Drawing.

AUGUST H. MUEGGE,
Instructor in Gymnastics.

HENRY RAND HATFIELD,
Instructor in Economics.

CARL KINSLEY,
Instructor in Physics.

WILLIAM H. RUSH,
Instructor in Botany.

GASTON DOUAY,
Instructor in French.

HERMAN VON SCHRENK,
Instructor in Botany.

STUDENTS.

SENIOR CASS.

NAMES.	COURSE.	RESIDENCE.
Allen, George Walbridge....	Elec. Eng..	3139 Lucas av.
Burnham, Grace.....	Arts.....	2942 Laclede av.
Conzelman, John Edward..	Civ. Eng...	2901 Morgan st.
Evans, Charles Orrick, Jr....	Arts.....	Kirkwood, Mo.
Frankenthal, Maurice Al-		
bert	Arts.....	1827 Kennett pl.
Knapp, Charles Speck.....	Mech. Eng...	2915 Lucas ave.
Langendorf, Alexander Suss..	Mech. Eng...	3133 Laclede av.
Rapp, Frank Arthur.....	Civ. Eng...	1315 Taylor av.
Ruth, Anna Harding.....	Arts.....	2626 Thomas st.
Sessinghaus, Bertha Char-		
lotte.....	Arts.....	2901 Rauschenbach av.
Stix, Cora.....	Arts.....	3135 Washington av.
Willits, Edward Everett....	Arts.....	4648 Kennerly av.
		Total, 12.

JUNIOR CLASS.

Adams, Grace.....	Arts.....	1010 Newstead av.
Adkins, James, Jr.....	Civ. Eng...	1414 S. Ewing av.
Avis, Mabel Dean.....	Arts.....	4115 Delmar boul.
Bonnet, Frederick, Jr.....	Chem.....	2719 Russell av.
Bouton, Walter Scott.....	Civ. Eng...	2909 Park av.
Bryan, Archibald Moore....	Civ. Eng...	Washington, Mo.
Cave, Rhodes Estil.....	Arts.....	8921 Delmar boul.
Evers, Helen Margaret	Arts.....	1861 N. Market st.
Hendrich, Charles August..	Civ. Eng...	2805 Lafayette av.
Hospes, Theresa Bertha.....	Arts.....	Old Orchard, Mo.

NAMES.	COURSE.	RESIDENCE.
Kimball, Arthur Campbell..Arts.....		Kirkwood, Mo.
Kirchner, Elida Caroline...Arts.....		4234A Easton av.
Pettus, Charles Parsons.....Arts.....		2834 Chestnut st.
Robinson, Arthur Dwight...Mech. Eng.	4174 West Belle pl.	
Shields, Walter.	Civ. Eng...	3860 Delmar boul.
Tyler, Eleanor Murdoch.....Arts.....		3215 Lucas av.
Wittler, William Stephen...Arts.....		1134 Rutger st.
Woermann, Frederick Christian.....	Civ. Eng...	2800 Cass av.
		Total, 18.

SOPHOMORE CLASS.

Burgess, Samuel Allen.....	2933 Harper st.
Chandler, Albert Barbour.	Kirkwood, Mo.
Dicke, Edward Christian.....	1911 Hebert st.
Eilers, Le Roy Matthew.....	1616 King's Highway.
Farnham, Anna May.....	2943 Thomas st.
Goebel, Julius Christian.....	1215 S. 14th st.
Grimm, Henry England.....	3213 Eads av.
Henby, William Hastings.....	2631 Russell av.
Hill, Tilly.....	1743 Preston pl.
Horwitz, Alexander Earle.....	1823 Carr st.
Kammerer, Alfred Louis.....	2724 Dayton st.
Klem, Mary Jeneatte.....	1940 Arsenal st.
Koken, Ernest C. F.....	3522 Hawthorne boul.
Leavitt, Sherman.....	5515 Cabanne pl.
Lewis, John James.....	Webster Groves, Mo.
McClure, Ralph Stanton.....	6814 Smiley av.
Merner, Blanche.....	3968 Finney av.
Phillips, Silas Bent.....	4442 Morgan st.
Pierson, Ruth Howard.....	1211 N. Garrison av.
Pollock, Robert Bowers.....	3967 West Pine boul.
Rhodes, Arthur M.....	4414 Washington boul.
Ritschy, Lewis John.....	2744 Russell av.
Schmedtje, Adolph Henry.....	2837 S. 13th st.

NAMES.	RESIDENCE.
Simpson, William Simeon, Jr.....	2110 Lafayette av.
Snyder, Allen Lane.....	4054 McPherson av.
Steinbreder, Alvina Louisa.....	4758 Hammett pl.
Stokes, Victor Hugo.....	East St. Louis, Ill.
Toensfeldt, Hans Carl.....	912 S. 9th st.
True, Clinton Utterbach.....	5837 Von Versen av.
Woelk, William John.....	Belleville, Ill.
	Total, 30.

FRESHMAN CLASS.

Alt, Arnold Dettman.....	3819 West Pine boul.
Baumgarten, Karl.....	2643 Chestnut st.
Bennett, Maud Warne.....	2903 Dickson st.
Black, Gurdon Gilmore.....	Clayton, Mo.
Brady, Leon Hobart.....	Kansas City, Mo.
Brown, Mabel Wolcott.....	1332 N. King's Highway
Brokaw, Paul.....	3200 Lucas av.
Bryan, Grace.....	3746 Windsor pl.
Caudler, Arthur Van Buren.....	6703 S. Sixth st.
Crecilius, Florence Lesette.....	1110 Dillon st.
Cutts, Francis Thacher.....	3887 Washington boul.
Davenport, Ralph.....	1319 Blackstone av.
Davis, Dwight	Kirkwood, Mo.
Eliot, Henry Ware, Jr.....	2635 Locust st.
Erskine, Lucille	4975 Nabada st.
Fischel, Walter.....	2647 Washington av.
Flickner, Martha Ver Bryck.....	2200 Salisbury st.
Fruchte, Maud Mercedes.....	3658 Finney av.
Fulbage, Louise	1709 Chouteau av.
Furth, Blanche Stella.....	3919 West Pine boul.
Greensfelder, Albert Preston.....	Central, Mo.
Haber, Otto W.....	3853 Olive st.
Hageman, Henry.....	1502 N. 19th st.
Harting, Otto Frederick.....	2705 N. 11th st.
Haydock, Daniel Winters.....	Normandy, Mo.

NAMES.	RESIDENCE.
Hudson, Marjorie Hannah.....	1820 O'Fallon st.
Judd, Nellie.....	1431 Locust st.
Kauffman, Richard King.....	Webster Groves, Mo.
Koken, William Theodore, Jr.....	3522 Hawthorne boul.
Lyon, Dora Laurina	4415 Kennerly av.
Magill, Frank H.....	1131 N. 18th st.
Meier, Arthur Ernst.....	2649 Miami st.
Mueller, Laura Carolyn.....	5058 Kensington av.
Olmstead, Mabel	4348 Garfield av.
Poss, Edward Daniel.....	5870 Plymouth av.
Senseney, Eugene Towner	2829 Washington av.
Sessinghaus, Emilie.....	2901 Rauschenbach av.
Trail, Mary Wilson	3613 Laclede av.
Tuholske, Rose	2337 Locust st.
Vegely, Norman Oscar	St. Joseph, Mo.
Wiederholdt, Ernest Ferdinand	1211 Morrison av.
Wright, Thruston.....	5336 Cabanne pl.
	Total, 42.

SPECIAL STUDENTS.

Barada, Marie Elise	1029 N. Grand av.
Bartlett, Roy.....	3021 Eads av.
Bowen, Sherman Worcester.....	5941 Cote Brilliante av.
Burg, Philip Melton	3251 Hawthorne boul.
Caldwell, Grace.....	5922 Horton pl.
Caldwell, John William.....	4119 McPherson av.
Castro, Leopoldo.....	Monterey, Mexico.
Clopton, William Hugh, Jr.....	2846 Locust st.
Daudt, Otto Armin.....	St. Charles, Mo.
Dyer, Lilia.....	4165 Lindell boul.
Eggers, Rose.....	3323 Russell av.
Forder, Samuel Walker.....	Station B, St. Louis.
Fulks, Elbridge Byron.....	California, Mo.
Gruen, William Henry.....	1337 Hickory st.
Harris, Sheba Florence.....	3412 Pine st.

NAMES.	RESIDENCE.
Haydock, Anna Thompson.....	Normandy, Mo.
Hinrichs, Carl Gustav.....	3132 Lafayette av.
McKeighan, Nellie.....	74 Vandeventer pl.
Maginnis, Eugenie Cecile.....	4338 Washington boul.
Merriwether, John Davis.....	720 Leonard av.
Meyers, Estelle.....	4190 Morgan st.
Miller, Grace Montgomery.....	4115 Washington boul.
Russell, Jennie Belle.....	1746 Missouri av.
Schwab, Leonore Ella.....	4393 Westminster pl.
Shelton, R. O.....	Pulaski, Io.
Siddy, Katherine.....	Webster Groves, Mo.
Singer, Sophie.....	3252 Pine st.
Stuart, James Lyall.....	5346 Maple av.
Thompson, Frances Dulty.....	3969 Washington boul.
Thornton, Frances Roberta.....	11 S. Spring av.
Tredway, Mary.....	3738 Westminster pl.
Weinrich, Ella Amalie.....	30 Benton pl.
Wesseler, William Julius.....	2819 S. 18th st.
Wood, Elizabeth Sumner.....	5327 Kingsbury pl.
Wright, Eleanor Wetherell.....	30 Windemere pl.
Wuerpel, Laura.....	4733 Page av.
	Total, 36.

SUMMARY.

Seniors.....	12
Juniors.....	18
Sophomores	30
Freshmen.....	42
Special students	36

Total, 138

COURSES OF INSTRUCTION PROVIDED IN THE UNDERGRADUATE DEPARTMENT.

GREEK.

Professor Waterhouse. Three times a week.

1. Herodotus (selections).
2. Homer (selections). Isocrates; The Panegyric.
3. Demosthenes on the Crown; Thucydides (selections).
4. Selections from the Tragedians.
5. Selections from the Tragedians.
6. Plato (selections).

LATIN.

Professor Jackson. Three times a week.

1. Livy; Second Punic War. Books XXI-XXX.
2. Horace; Odes and Epodes; Satires and Epistles (selections).
3. Cicero; Philosophical Works (selections); Letters.
4. Plautus, Terence, Juvenal (selections).
5. Tacitus; Annals and Histories (selections).
6. Suetonius; Seneca. Moral Essays; Quintilian.
7. Seneca, Tragedies; Martial, Epigrams; Lucretius.
8. Pliny, Letters; Catullis, Tibullus, Propertius (selections).

ENGLISH.

Professor Dixon.

1. The elementary laws of all writing. Canons of correct usage in language. The function of grammars and dictionaries. Analysis of sentences. English idioms—auxiliary verbs, conditional sentences, relative pronouns,

- etc. Literary forms—the paragraph, article, essay. The rules of letter-writing. Exercises in composition and analysis. *Three hours a week.*
- 2. Modern English prose, especially in the departments of narrative and exposition. Framing of synopsis and abstracts. Exercises in journalistic paragraphs. *Three hours a week.*
- 3. English prose from Sidney and Dryden to Arnold, Newman, and Lowell. Lectures on the development of English prose. *Three hours a week.*
- 4. Modern poetry: Keats, Tennyson, Browning. Sonnet literature. *Two hours a week.*
The laws of versification, with exercises. *One hour a week.*
- 5. Oratory as a branch of literature. The composition of an oration. Study of Bacon's essays. *Two hours a week.*
Rise and growth of the English novel. Exercises in story-writing. History of journalism and the essay. *One hour a week.*
- 6. Shakespeare; his life and literary career; the quartos and folios. English and German editors and commentators; textual criticism. Critical reading of one play (1898, *Henry IV*). Exercises in analyzing the structure of the play, and the development and interaction of the characters. *Three hours a week.*
- 7. Spenser, Milton (1898, *Paradise Lost*, Bk. IV), Pope, Wordsworth. *Two hours a week.*
Old English grammar and composition. Lectures on philology. *One hour a week.*
- 8. Dialect literature. Ballad literature. Chaucer and Burns. *Two hours a week.*
Seventeenth century prose. *One hour a week.*

GERMAN.

Professor Heller. Three times a week.

- 1-2. Elementary Courses. Accidence; Translation from German into English and from English into German; German Conversation. Reading: *Zschokke*, der zerbrochene Krug; *Fischer*, die wandelnde Glocke, *Leander Traumereien*, *Storm*, *Immense*.
Prescribed for Freshmen who did not present German for admission.
- 3-4. German Syntax; Prose Composition. *Joyner-Meissner*, v *Jagemann*, Syntax and Composition; German Conversation; Reading: *Stifter*, das Heidedorf; *Freytag*, der Rittmeister von Alt-Rosen; *Meyer*, Gustav Adolf's Page, and a short comedy.
- 5-6. Composition continued; History of German Literature from its beginning to the death of Goethe. Reading: *Lessing*, Minna von Barnhelm, *Goethe*, Hermann u. Dorothea, Iphigenie auf Tauris; *Schiller*, das Lied von der Glocke, Wallenstein; Home-Reading.
- 7-8. History of German Literature from 1832-1897. Reading: Works of *Heine*, *Auerbach*, *Getbel*, *Scheffel*, *Freytag*, Schuecking, *Spielhagen*, *Heyse*, *Wildenbruch*, *Baumbach*, *Seidel*, *Keller*. Introduction to Seminar-work.
- 9-10. Introduction to the history of the German Language (*Weise*). Middle-High-German Grammar (*Paul*); Reading: *Nibelungenlied*; *Hartmann von Aue*; *Walter von der Vogelweide*; *Ulrich von Liechtenstein* (in the original).

Courses 5-10 are conducted in German, 10 is offered primarily to students of German parentage, and is the basis of a four-years' graduate course. In 7-8 two different authors are made the subject of special study each year. In 1897-8 these are *Heine* (7) and *Scheffel* (8). For this reason these courses may be elected by graduates in conjunction with 9-10.

FRENCH.

Mr. Douay. Three times a week.

1. Elementary course: Pronunciation, elementary grammar, easy colloquial French.
 2. Elements of syntax. Reading and translation of French prose.
A modern French comedy will be read as a part of Course 2.
 3. Reading, conversation, dictation. French syntax. Translation of English into French.
 4. Reading. Conversation. Study of idioms. Elements of French composition. Outside reading.
 - 5-6. Brief account of the development of French literature to the XVII century. French literature of the XVII century with illustrative readings. French essays on literary subjects.
 - 7-8. French literature of the XVIII and XIX centuries, with illustrative readings. French essays.
- N. B.—Courses 5-6, 7-8 are conducted in French. Several French lectures will be delivered during each term.

LOGIC.

Professor Dixon. Three times a week.

Province of Logic. Terms. Extension and intension; Logic and language. Propositions and their conversion; the predicate; division and definition. The Syllogism; regular, irregular and compound conditional arguments. Fallacies and the best methods of treating them. Argument in orations and general literature.

PSYCHOLOGY.

Dr. Hatfield. Three times a week.

Elementary Psychology. A beginning course, using Höffding's *Outlines of Psychology* as text-book, with collateral reading in James' *Psychology*.

ECONOMICS.

Dr. Hatfield. Three times a week.

1. Elementary Economics. A beginning course in theory, prerequisite for all other courses, except Course 3.
2. Advanced Economics. A continuation of the study of theory, prerequisite for Courses 4, 5, 6 and 7.
3. Descriptive Economics. A practical course to supplement Course 1, for those who desire only a general knowledge of Economic problems.
4. Economic History since 1763.
5. Financial History of the United States.
6. Money and Banking.
7. Tariff History of the United States.
8. Social Economics. Poor relief, immigration, monopolies, co-operation, profit-sharing, trades unions.

HISTORY.

Professor Snow. Three times a week.

1. History of England from Henry VII. to the end of the Stuart Period. Lectures and recitations.
2. History of England; Modern Period.
3. History of France under the Bourbon Kings to the Revolution.
4. The Revolution and the Empire.
5. Mediæval Germany; The Holy Roman Empire to the Peace of Westphalia.
6. Eastern Europe since the Fall of the Western Empire.
7. Constitutional History; Constitution of the United States; Comparison of American and European Governments.
8. Elements of International Law, with Study of Treaties.
Half course.
9. General European History; Review and Philosophical Discussion.
Half course.

HISTORY OF ART.

Mr. Holmes Smith. Three times a week.

1. Ancient Art: Development of Architecture, Sculpture and Decoration in Ancient Egypt, Chaldea, Assyria, Persia, Greece and Rome.
2. Mediæval Art: Early Christian, Romanesque and Gothic Art, Architecture, Sculpture and Decoration.

Students in these courses may with advantage take Drawing 1.

MATHEMATICS.

Three times a week.

1. Higher Algebra. *Professor Engler.*
2. Plane and Spherical Trigonometry. *Professor Engler.*
3. Analytic Geometry. *Professor Engler.*
4. Differential Calculus. *Professor Engler.*
5. Integral Calculus. *Professor Woodward.*
6. Method of Least Squares. *Professor Nipher.*
7. Higher Plane Curves. *Professor Engler.*
8. Theory of Functions. *Professor Engler.*

MECHANICS.

Professor Woodward.

1. Graphical Statics. Stress Diagrams for Frames, Trusses and Bridges analyzed and drawn to scale. *Three hours a week.*
2. General Principles of Statics and Dynamics with illustrative examples. *Four hours a week.*
3. Rotation of Rigid Bodies. Character and distribution of Stress. Strength and Stiffness of Girders and Shafts. *Four hours a week.*

4. Kinematics, Mechanism, including the general theory of transmission of energy by Gearing, Liquids, Belts, etc., with and without friction. *Two hours a week.*
5. Deflection of beams and girders and the Torsion of Shafts. *Two hours a week.*

PHYSICS.

1. Elementary Mechanics, including the Mechanics of Fluids. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
2. Optics. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
3. Heat. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
4. Electricity and Magnetism. *Two lectures or recitations and two hours of laboratory work a week.* *Professor Nipher and Mr. Kinsley.*
5. Laboratory instruction in Electrical Measurements, including measurement of resistances, E. M. F. of batteries, the calibration of amperemeters and voltmeters, electrolytic measurements, magnetic determinations, heating effect of currents, electrical determinations of Joule's equivalent. *Six hours a week.* *Prof. Nipher.*
6. Introduction to the mathematical theory of Electricity and Magnetism, including the theory of Potential; capacity of bodies; energy of electrical systems; electrometers and electrostatic voltmeters, theory of magnetic measurements, magnetic fields due to electric currents, electrical induction, theory of dynamos and electric motors, alternating currents, tri-phased systems. *Three hours a week.* *Professor Nipher.*
7. Dynamo-electric Machinery, including a discussion of the theory of series, shunt and compound dynamos and motors, conditions of efficiency of dynamos and motors, conditions of economic operations, transformers and

- transformer systems, electric lighting stations, electric railways, power stations, and secondary batteries. *Three lectures a week.* *Mr. Kinsley.*
8. Laboratory work in testing electrical machinery. *Three hours a week.* *Mr. Kinsley.*
9. Designing of electrical machinery. *Six hours a week.* *Mr. Kinsley.*
10. Electrical Transmission of Power and Light, and the study of the designing of machinery for specific output and economy. *Three hours a week of lectures and two hours of laboratory work.* *Mr. Kinsley.*
- 11-12. Designing of Electrical Machinery. *Six hours a week.* *Mr. Kinsley.*
- 13-14. Laboratory Work. *Six hours a week.* *Mr. Kinsley.*

CHEMISTRY.

- 1-2. General Descriptive Chemistry. Lectures, laboratory work and recitations. General theories of chemistry. Description of the elements and their compounds. *Six hours a week.* *Professor Sanger.*
 Courses 1-2 must precede all others.
- 3-4. Qualitative Analysis. Mainly laboratory work. *Six hours a week.* *Professor Sanger.*
- 5-6. Quantitative Analysis, Elementary. Mainly laboratory work. Fundamental principles of gravimetric and volumetric analysis. *Six to twelve hours a week.*
Adjunct-Professor Hunicke.
 Courses 5-6 may be taken with courses 3-4, with the consent of the instructor.
- 7-8. Quantitative Analysis, Advanced. Laboratory work. Analysis of commercial and industrial materials and products. Sanitary examination of foods, water, etc. Gas Analysis. A knowledge of German is desirable. *Six to twelve hours a week.*
Professor Sanger and Adjunct-Professor Hunicke.
 Courses 7-8 must be preceded by courses 5-6.

- 9-10. Carbon Compounds. Lectures on the syntheses of the carbon compounds. Preparation of compounds illustrative of general synthetic methods. A knowledge of German is essential. *Three to six hours a week.*

Professor Sanger.

Courses 9-10 must be preceded by courses 3-4 and 5-6.

11. Advanced Inorganic Chemistry. Lectures on the history of chemistry and discussion of chemical theory. *Three hours a week.*

Professor Sanger.

Course 11 must be preceded by courses 3-4, 5-6, and 9-10.

12. Crystallography and Descriptive Mineralogy. Lectures and conferences. *Three hours a week.*

Adjunct-Professor Hunicke.

13. Determinative Mineralogy. Lectures and laboratory work. Determination of minerals by means of the blow-pipe. *Three hours a week.*

Adjunct-Professor Hunicke.

Course 13 must be preceded by course 12.

14. Assaying. Fire assays of gold, silver and lead ores and smelting products. Laboratory work. *Three hours a week.*

Adjunct-Professor Hunicke.

Course 14 must be preceded by courses 3-4, 5-6, 12 and 13.

15. General Metallurgy. Lectures. Outlines of metallurgical processes for the production of the most common metals. *Three hours a week.*

Adjunct-Professor Hunicke.

Course 15 must be preceded by courses 3-4, 5-6, 12 and 13.

16. Chemical Technology. Lectures and conferences. The discussion of processes of manufacture of acids, alkalies, and salts; cements, ceramics, and glass. *Three hours a week.*

Adjunct-Professor Hunicke.

17. Chemical Technology. The industries of the fats and oils; destructive distillation of wood and coal; starch,

sugar, beer and spirits; fertilizers; fibre industries; working up of bye products. *Three hours a week.*

Adjunct-Professor Hunicke.

Courses 16-17 must be preceded by courses 3-4, 5-6, 7-8, and 9-10.

18-19. Research in Theoretical Chemistry. Laboratory work and reference to chemical journals. Investigation of some subject in inorganic or organic chemistry. Preparation of a thesis. *Professor Sanger.*

20-21. Research in Applied Chemistry. Laboratory work and reference to chemical journals. Investigation of some subject of direct practical value in sanitary chemistry, technical chemistry or analytical chemistry. Preparation of a thesis.

Professor Sanger and Adjunct-Professor Hunicke.

BOTANY.

Professor Trelease and two Assistants. Three times a week.

1. Elementary Morphology and Organography, with reference to Ecology and Systematic Botany. Lectures and demonstrations.
2. Elementary Anatomy and Phanerogamic Botany. Laboratory work.
3. Synoptical Study of the Cryptogams. Laboratory work.
4. A special study of some group of Cryptograms.
5. Methods of Vegetable Histology. Laboratory work.
6. Histology and Morphology of the Higher Plants. Laboratory work.
7. A laboratory study of the minute anatomy of the lower Cryptogams.
8. Technical Microscopy of Timbers. Laboratory work.
Two hours a week.

9. Economic Botany. Lectures and laboratory demonstrations.
- 10-11. Applied Mycology. Laboratory work.
- 12-13. Garden Botany. Laboratory study of cultivated plants, at the Botanical Garden.
- 14-15. Vegetable Physiology. Laboratory work.
- 16-17. Bacteriological Technique. Laboratory work.
18. Demonstrations in Bacteriology. *Two hours a week.*

It is intended that course 1 shall always be followed by course 2, the two being preparatory to other electives. For the present, unless especial reason to the contrary exists, courses 1 and 2 only will be given each year, the remaining electives being offered the alternate years, as follows:—

For 1897-98.

First term, courses 1, 5, 8, 10, 16 and 18.

Second term, courses 2, 6, 7 and 11.

For 1898-99.

First term, courses 1, 3, 12, 14, 16 and 18.

Second term, courses 2, 4, 9, 13, 15 and 17.

Students who have taken courses 1 and 2, or have had their equivalent elsewhere, are admitted to any of the other elementary electives which can be taken without conflict with other University work; but students who desire to equip themselves as botanists are advised to take the electives as nearly as possible in the order in which they are offered, and on the completion of the elective courses should expect to devote not less than ten hours a week through an entire year to some piece of research work, selected under the advice of the Professor of Botany.

Special post-graduate study or investigation is planned to meet the needs of students, so far as the facilities of the School of Botany and the Botanical Garden permit.

ASTRONOMY.

Professor —

1. Descriptive Astronomy. Lectures and recitations, with occasional work at the Observatory. *Three hours a week.*
2. Practical Astronomy. Applications of Astronomy in determination of Time, Latitude, Longitude and Azimuth. *Two hours* recitation, *two hours* observatory work. Spherical Trigonometry will be required for entrance to either of these courses.

ZOOLOGY.

Adjunct-Professor Hambach. Three times a week.

- 1-2. Lectures and laboratory demonstrations.

GEOLOGY.

Adjunct-Professor Hambach.

1. General Course. *Two hours a week.*
- 2-3. Elementary and Systematic Geology. *Three hours a week.*
- 4-5. Palæontology. *Three hours a week.*
6. Petrography. *Three hours a week.*

DRAWING.

Mr. Smith.

1. Freehand Drawing in outline of groups of objects, both from the objects themselves and from memory. The accurate observation of form and its correct expression. The study of proportions, and the laws of perspective involved in freehand drawing from objects.
Freehand Drawing and Shading from objects with pencil, pen and ink, and brush. The study of light and shade as a means of expressing form on a flat surface. The methods of suggesting in sketches the character of different materials. *Six hours a week.*

2. Practical Freehand Lettering for use on plates and working drawings.

Geometrical Drawing. Those problems in construction that are needed in the study of descriptive geometry, machine design, etc. *Six hours a week.*

3. Machine Drawing. The making of working drawings from actual measurement of machines and parts of machines. The making of tracings and blue prints.

Isometric Drawing from actual measurement or from sketches. In this work the drawings are line shaded.

The essentials of Linear Perspective, with problems. *Four hours a week.*

4. Machine Drawing, Isometric Drawing, Perspective. Course 3 continued. *Two hours a week.*

DESCRIPTIVE GEOMETRY.

Professor Engler. Three times a week.

1. General problems of points, lines and planes; single curved, double curved and warped surfaces.

2. Tangency, intersections, shades and shadows, linear perspective.

CIVIL ENGINEERING.

Professor Johnson.

1. Elements of Surveying. The use and adjustment of all the ordinary surveying instruments; simple land surveying and leveling. *Two recitations a week, with field practice Saturday forenoon.*

2. Topographical, Mining and Hydrographic Surveying. Topographical surveying by the transit and stadia method and also by the plane table; problems in laying out simple and compound curves and turn-outs, the passing of obstructions, adjustment of curves, etc., in railroad surveying. *Two recitations a week, with field practice Saturday forenoon.*

3. Surveying in the Field. Three weeks devoted to field practice. This practice includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a system of triangulation and levels which forms a part of the work of the survey. A railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time and azimuth, and various other special problems worked out practically. The map of this survey is drawn after return from the field. The class goes to a suitable point at a distance from the city for this work.
4. Higher Surveying. City, railroad and geodetic surveying, with the principles of the construction of maps, the principles governing the economic location of railways; also the drawing of the map of the Field Survey. *Four recitations a week, field practice Saturday forenoon, and four hours a week in the drawing room.*
5. Stereotomy. Application of Descriptive Geometry to stone cutting, including groined, cloistered and skew arches. *Three hours a week.* Prof. Engler.
6. The analysis of Stresses in Framed Structures. Analytical and graphical determinations of stresses in various styles of roof trusses, and of highway and railway bridges for distributed and concentrated, fixed and moving loads. *Three recitations a week.*
7. The Designing of Framed Structures. The analysis of suspension, draw and arch bridges, and an analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs; the preparation of drawings showing all the details of some existing iron bridge, made from actual measurements taken by the

students, and complete original designs of a plate girder, of a trussed roof, and of a highway bridge. *Four recitations a week, and eight hours a week drawing-room work.*

8. **Masonry Structures.** Building masonry foundations, retaining walls, dams, arches, chimneys, etc., together with the study of the strength of the material involved. *Two recitations a week.*
9. **Engineering Materials.** A review of the principles of mechanics relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of methods of testing the strength of materials and a discussion of the essential properties of the more common materials of engineering construction. *Three recitations a week.*
- 10-11. **Testing Laboratory Practice.** Experimental tests made by the student on the strength of various kinds of engineering materials. *Three hours a week.*
12. **Sanitary Engineering and Irrigation.** Modern irrigation methods, including the elements of a complete irrigation scheme, and the methods of drainage of land.
The collection, storage, pumping, settling, filtering and distribution of potable waters, as modified by the conditions governing the supply, and the demands of city service.
Sewerage and Drainage of Cities. The practical designing of systems of sewerage and drainage of cities, together with the methods of sewage disposal, the principles of house drainage, sanitary plumbing, etc.
Four recitations a week
13. **Specifications and Contracts.** The law of contracts as applied to engineering work, together with typical forms of specifications governing both the commercial and

the technical features of engineering construction, and of all the related documents pertaining to engineering contracts. *One recitation a week.*

14. Structural Drawing. To accompany course 6. *Six hours a week.*
15. Engineering Design. Supplementary to courses 7, 8 and 13. *Eight hours a week.*
16. Graduation Thesis. An extended study or design, involving original investigation or experiment.

MECHANICAL ENGINEERING.

Professor Kinealy.

1. Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work, and trains of mechanism. *Four hours a week.*
2. Machine Designing. Study of the principles. *Two hours a week.*
3. Machine Designing. Shafting, gearing, belts and ropes. *Two hours a week.*
4. Elementary Steam Engineering. Elements of thermodynamics and the theory of the steam engine; types of engines; valves and valve diagrams; indicator cards; boilers and chimneys. *Three hours a week.*
5. Machinery Drawing. Work in the drawing-room to accompany Course 1. *Six hours a week.*
6. Machinery Drawing. Details of the steam engine; link motions, and valve diagrams. *Six hours a week.*
7. Mechanical Laboratory. The standardization of instruments; oil testing. *Three hours a week.*
8. Mechanical Laboratory. Lining up and adjusting the steam engine; use of the indicator; valve setting; tests of the engine. *Three hours a week.*

9. Hydraulics and Hydraulic Machinery. *Three hours a week.*
Professor Woodward.
10. Advanced Steam Engineering. Study of the details of different engines. Thermodynamics. *Three hours a week.*
11. Steam Engine Designing. *Three hours a week.*
12. Boiler and Chimney Designing. *Three hours a week.*
13. Mill and Factory Construction. *Two hours a week.*
14. Heating and Ventilating. *Three hours a week.*
15. Engine Designing. Work in the drawing-room to accompany Course 11. *Six hours a week.*
16. Engine Designing. Work in the drawing-room to accompany Course 11, for students in Electrical Engineering. *Three hours a week.*
17. Boiler Designing. Work in drawing-room to accompany Course 12. *Nine hours a week.*
18. Mechanical Laboratory. Tests of the steam and gas engines. *Three hours a week.*
19. Mechanical Laboratory. Boiler tests; visits to manufacturing establishments. *Three hours a week.*

THE COLLEGE.

ADMISSION.

Candidates for admission to the College will present themselves for examination on Monday, June 13, 1898, in room No. 8, east wing of the University Building, at 9 o'clock A. M. A second examination will be held on Tuesday, September 20, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other colleges are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.*

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammer*; *Shakespeare's Merchant of Venice*, *Addison's Roger de Coverley* papers from *The Spectator*, *Goldsmith's Vicar of Wakefield*, *George Eliot's Silas Marner*, *Longfellow's Evangeline*, and *Emerson's essays on Friendship, Manners, Compensation, History, Character*.

- II. *Algebra*, including radicals and equations of the second degree.

- III. *Elementary Plane and Solid Geometry.* *Wells' or Wentworth's Geometry* or an equivalent.

- IV. *Latin.* Grammar, four books of Cæsar, seven orations of Cicero, and six books of the *Aeneid* of Virgil. Prose Composition.

- V. *Modern Language.* Either French or German at the option of the candidate; facility in reading ordinary prose at sight and knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.

* NOTE.—*Greek* is not required for admission; but candidates who intend to continue the study of *Greek* after admission to the College must fulfill the following requirements:—

Goodwin's Grammar and Reader; or *Grammar, four books of the Anabasis*, and three books of the *Iliad*; prose composition.

VI. History. Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools; of Greece and Rome, such as is found in Pennell's or Smith's Small Histories.

VII. Elementary Physics. Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

SPECIAL STUDENTS.

Special Students may be admitted to one or more courses in the college upon the following conditions:—

1. That evidence of proper preparation, satisfactory to the committee and to the instructors concerned, be submitted before admission to any course or courses.

2. That candidates for degrees who fail in the work of the regular courses shall not have the privilege of becoming Special Students, unless such failure shall come from physical inability to do the required work.

3. That Special Students shall not be regarded as candidates for a degree.

All matters concerning Special Students are referred to a standing committee of the Faculty, which is composed of Professors Snow, Waterhouse and Sanger. Applications should be made to Professor Snow, Chairman.

ARRANGEMENT OF STUDIES IN THE COLLEGE.**FRESHMAN YEAR.****Prescribed Studies.*

English, courses 1 and 2.

German, courses 1 and 2, or French, courses 1 and 2, for those who do not present both of these languages for admission.

Elective Studies.

In addition to the prescribed studies, every Freshman is required to take each term elective studies amounting to *three full courses*. No Freshman may elect more than one course in the same subject without the consent of the Dean.

The following courses are open to Freshmen:—

Greek, 1, 2.

Latin, 1, 2.

English, 1, 2.

German, 1, 2.

French, 1, 2.

History, 1, 2.

Mathematics, 1, 2.

Drawing, 1, 2.

Physics, 1, 2.

Chemistry, 1, 2.

Botany, 1, 2.

A Freshman who is qualified to take a higher course in any study named above may do so, with the permission of the instructor in the course and the Dean of the College.

SOPHOMORE AND JUNIOR YEARS.

The prescribed work of the Sophomore and Junior years consists of:—

English, courses 3, 4 and 5, 6.

* The figures indicate the numbers of the Courses of Instruction.
See pp. 28-44.

Besides the prescribed courses every Sophomore and every Junior is required to take each term *four elective courses*, or an equivalent amount of courses and half courses.

SENIOR YEAR.

Eight courses, all elective, are required for the Senior year.

ADVISERS.

A Standing Committee of five members of the Faculty is appointed annually to advise students of the College in the choice of studies and to assist them in making a wise arrangement of their work. The Committee for the year 1897-98 consists of Professors Snow, Waterhouse, Pritchett, Trelease, Heller.

CHOICE OF STUDIES.

Every student is required to give notice in writing to the Dean of the College on the first day of each term of his choice of studies for that term.

Changes may be made only by permission of the Advisers, to whom application must be made in writing, with a full statement of reasons.

No student will be allowed to elect any course for which his previous training has not fully prepared him.

REQUIREMENT FOR THE DEGREE OF BACHELOR OF ARTS.

The satisfactory completion of thirty-eight courses of one term each, with three recitations a week (or their equivalent), is necessary to fulfill the requirements for the degree of Bachelor of Arts.

THE SCHOOL OF ENGINEERING.

ADMISSION.

Candidates for admission to the School of Engineering will present themselves for examination on Monday, June 13, 1898, in room No. 8, east wing of the University Building, at 9 o'clock A. M. A second examination will be held on Tuesday, September 20, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other institutions are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression.

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences, such as is found in *Longman's School Grammar*; *Shakespeare's Merchant of Venice*; *Addison's Roger de Coverley* papers from *The Spectator*; *Goldsmith's Vicar of Wakefield*; *George Eliot's Silas Marner*; *Longfellow's Evangeline* and *Emerson's Essays on Friendship, Manners, Compensation, History, Character*.

II. *Algebra*, including radicals and equations of the second degree.

III. *Elementary Plane and Solid Geometry.* Wells' or Wentworth's Geometry or an equivalent.

IV. *Modern Language.* Either French or German at the option of the candidate; facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.

N. B.—In place of Requirement IV, advanced work in Mathematics, Physics, or Chemistry, equivalent to two courses in these subjects as given in the School of Engineering, will be accepted, provided the candidate is 18 years old and has satisfied the

instructor that he has done the work in the subject he presents. A student thus admitted will be excused from work in the subject for which he has been given credit, but he will be required to do an equivalent amount of work in some other subject acceptable to the Faculty.

V. History. Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools.

N. B.—In place of the work in the History of England, an equivalent amount of work in the history of some other country, in Ancient History, or in General History will be accepted.

VI. Elementary Physics. Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

VIII. Drawing. *a.* Free-hand drawing in outline from groups of simple objects. *b.* Simple free-hand lettering.

ARRANGEMENT OF STUDIES IN THE SCHOOL OF ENGINEERING.

The courses of study in the School of Engineering are five in number:—

- I. Civil Engineering.
- II. Mechanical Engineering.
- III. Electrical Engineering.
- IV. Chemistry.
- V. Science and Literature.

*FRESHMAN YEAR.

The same for all Courses.

FIRST TERM.

English, 1. †	Mathematics, 1.
German or } 1.	Physics, 1.
French, } 1.	Chemistry, 1.
History, 1.	Drawing, 1.

SECOND TERM.

English, 2.	Mathematics, 2.
German or } 2.	Physics, 2.
French, } 2.	Chemistry, 2.
History, 2.	Drawing, 2,

SOPHOMORE YEAR.

The same for all Courses.

FIRST TERM.

German or } 3.	Chemistry, 3.
French, } 3.	Drawing, 3.
Mathematics, 3.	Descriptive Geometry, 1.
Physics, 3.	Civil Engineering, 1.

* In the School of Engineering all the studies for each course are prescribed; there is no choice except as indicated.

† The figures indicate the numbers of the Courses of Instruction.
See pp. 28-44.

SECOND TERM.

Mathematics, 4.	Geology, 1.
Mechanics, 1.	Drawing, 4.
Physics, 4.	Descriptive Geometry, 2.
Chemistry, 4.	Civil Engineering, 2.

N. B.—In addition to the above, Shop-work 2, (3 hours a week) is required in both terms of students who have not had Shop-work before admission.

I. CIVIL ENGINEERING.

FRESHMAN AND SOPHOMORE YEARS.

(See above.)

JUNIOR YEAR.

FIRST TERM.

Mathematics, 5.	Civil Engineering, 3.
Mechanics, 2.	Civil Engineering, 4.
Physics, 5.	Civil Engineering, 5.
Botany, 8.	

SECOND TERM.

Mechanics, 3.	Civil Engineering, 9.
Physics, 6.	Civil Engineering, 10.
Botany, 18.	Civil Engineering, 14.
Civil Engineering, 6.	Mechanical Engineering, 4.

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Civil Engineering, 7.
Mechanical Engineering, 9.	Civil Engineering, 11.
Astronomy, 1.	Economics, 1.

SECOND TERM.

Mathematics, 6.	Civil Engineering, 12.
Mechanics, 5.	Civil Engineering, 13.
Astronomy, 2.	Civil Engineering, 15.
Civil Engineering, 8.	Thesis.

II. MECHANICAL ENGINEERING

AND

III. ELECTRICAL ENGINEERING.

FRESHMAN AND SOPHOMORE YEARS.

(See p. 53.)

JUNIOR YEAR.

FIRST TERM.

Mathematics, 5.	Mechanical Engineering, 1.
Mechanics, 2.	Mechanical Engineering, 2.
Physics, 5.	Mechanical Engineering, 5.
Civil Engineering, 3.	Mechanical Engineering, 7.

N. B.—Students who have not had instruction in Shop-work before admission are required to omit Mechanical Engineering 7, and for a part of Mechanical Engineering 5 to substitute Shop-work.

SECOND TERM.

Mechanics, 3.	Mechanical Engineering, 3.
Physics, 6.	Mechanical Engineering, 4.
Civil Engineering, 9.	Mechanical Engineering, 6.
Civil Engineering, 10.	Mechanical Engineering, 7.

N. B.—Students who have not had instruction in Shop-work before admission are required to substitute Shop-work for Civil Engineering 10.

II. MECHANICAL ENGINEERING.

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Mechanical Engineering, 10.
Mechanical Engineering, 9.	Mechanical Engineering, 11.
Physics, 7.	Mechanical Engineering, 15.
Physics, 8.	Mechanical Engineering, 18.

SECOND TERM.

Mathematics, 6.	Mechanical Engineering, 13.
Mechanics, 5.	Mechanical Engineering, 14.
Civil Engineering, 13.	Mechanical Engineering, 17.
Mechanical Engineering, 12.	Mechanical Engineering, 19. Thesis.

N. B.—~~Students~~ who have not had instruction in Shop-work before admission are required to take Civil Engineering, 10, in addition to the above.

III. ELECTRICAL ENGINEERING.

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Physics, 9.
Mechanical Engineering, 9.	Mechanical Engineering, 10.
Physics, 7.	Mechanical Engineering, 11.
Physics, 8.	Mechanical Engineering, 16.

SECOND TERM.

Mathematics, 6.	Physics, 14.
Mechanics, 5.	Mechanical Engineering, 12.
Physics, 10.	Mechanical Engineering, 13.
Physics, 12.	Thesis.

N. B.—~~Students~~ who have not had instruction in Shop-work before admission are required to take Civil Engineering, 10, in addition to the above.

IV. CHEMISTRY.**FRESHMAN AND SOPHOMORE YEARS.**

(See p. 53.)

JUNIOR YEAR.**FIRST TERM.**

Mathematics, 5.	Chemistry, 5, 6.
Mechanics, 2.	Chemistry, 12.
Physics, 5.	Botany, 1.

SECOND TERM.

Mechanics, 3.	Chemistry, 13.
Physics, 6,	Chemistry, 14.
Chemistry, 7, 8.	Mechanical Engineering, 4.

SENIOR YEAR.**FIRST TERM.**

Mechanical Engineering, 10.	Chemistry, 16.
Physics, 7.	Chemistry, 18 or 20.
Chemistry, 9, 10.	Botany, 16.
Chemistry, 15.	

SECOND TERM.

Chemistry, 11.	Chemistry, 19 or 21.
Chemistry, 17.	Botany, 17.
	Thesis.

V. SCIENCE AND LITERATURE.**FRESHMAN AND SOPHOMORE YEARS.**

(See p. 58.)

JUNIOR YEAR.

The work of the Junior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

SENIOR YEAR.

The work of the Senior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

APPLIANCES IN CIVIL ENGINEERING.

Surveying Instruments.—The equipment includes three transits for ordinary field work, one altazimuth instrument for triangulation and astronomical work, reading to ten seconds of arc on both horizontal and vertical circles, two engineers' levels, two needle compasses, one sextant, one plane table, one 300-foot steel tape standardized, with all the necessary accompanying apparatus for field and office work, such as stadia boards, stadia slide rules, chains, tapes, signals, protractors, parallel rules, etc.

There is also a complete mining transit, adapted to the use of the stadia, which may be used for topographical work if required.

Library, Models and Drawings.—There is a well selected working library accessible to students which

they consult freely on assigned topics. There is also a large assortment of drawings of the most interesting engineering and architectural structures at home and abroad. Many photographs and blue prints have been collected illustrating all the more common styles of bridges with their details.

The Testing Laboratory.—The facilities in the testing laboratory are very complete. A floor space of about 2,400 square feet is occupied with the following appliances: two Riehle universal testing machines with a capacity of 100,000 lbs. and 20,000 lbs. respectively, a beam testing machine, with a capacity of 100,000 lbs. on a length of 24 feet; two beam testing machines with a capacity of 6,000 lbs. on a length of five feet with micrometer deflection measuring apparatus; a column testing machine with capacity of 1,000,000 lbs. on a length of 36 feet or less; cement testing machines of the Fairbanks, the Riehle, and the Olsen types; a complete standard set of German briquet making and testing machines and scales, with pounding apparatus; an extensometer apparatus reading to ten thousandths of an inch; one eight-horse power steam engine; one five-horse power dynamo; one planer and one lathe for iron work; one wood planer, one band saw, and one cutting off circular saw for shaping timber specimens; two drying ovens and three sets of scales; a dry kiln with steam coil and exhaust fan for drying lumber; complete sets of bench and carpenter's tools, standard gauges, scales, etc.

APPLIANCES IN MECHANICAL ENGINEERING.

Drawings and photographs illustrating the best practice in all branches of mechanical engineering, including a number of drawings of the machinery of ships for the U. S. Navy, and examples of the best practice in the construction of locomotives, stationary engines, and machine tools are provided. Students have access to a small but modern and carefully selected technical library, and to a number of the best technical journals.

The laboratory contains a steam engine, a Westinghouse air compressor, a Bogart gas and gasoline engine, a Carpenter steam calorimeter, a pair of Crosby indicators, a planimeter, a tachometer, a Thompson coal calorimeter, a pryometer, a complete set of apparatus for testing lubricants, a standard gas meter, a standard test gauge, a Prony brake, thermometers, revolution counters, and such tools as are necessary.

Students have access to the shops of the St. Louis Manual Training School, in which they receive a training in the use and care of metal and wood working tools and machinery.

APPLIANCES IN ELECTRICAL ENGINEERING.

The Electrical Engineering Laboratory contains a high speed Buckeye Engine of twenty horse power; two Gramme dynamos, the one being a series and the other a shunt-wound machine; smaller motors of various types; voltmeters, amperemeters and galvanometers of various types and capacities; a Brackett

cradle-ergometer upon which one dynamo is mounted and by which the power applied to it can be measured; a Wheatstone bridge; a Prony brake; a Siemens electro-dynamometer; a mercury column fifty feet in height, which is arranged for testing steam gauges and indicator springs at any temperature, and a compression air-pump capable of working to twenty atmospheres.

The rooms are wired conveniently for practical measurements upon the electric plant, and for the measurement of candle power of lamps. The alternating current from the public mains of the Missouri Electric Light and Power Company is carried to the laboratory switchboard, and is thus available for experimental work.

LECTURE FOUNDATIONS.

A Lecture Endowment Fund, amounting to twenty-seven thousand dollars (\$27,000), was created in 1875, by one of the early friends of the University, MR. WILLIAM HENRY SMITH. It was given without any restrictions, except that the fund should be increased, if practicable, by accruing interest, to \$30,000, which has been accomplished, and that no part of the principal should be expended.

The beginning of a fund for the encouragement of the study of American History has been made by a gift of \$15,000, by MRS. MARY HEMENWAY, of Boston, Massachusetts.

Upon this foundation a *University Professorship of American History* has been established, and the chair was filled in 1884 by the appointment of Dr. John Fiske, of Cambridge, Mass.

LIBRARY AND READING ROOM.

Necessary books of reference are provided, and also a good selection of periodical literature. No attempt is made at present to gather a general library. During the year 1880 a gift of about three thousand volumes was received from the family of the late Joseph Coolidge, of Boston. The collection, known as the *Coolidge Library*, is especially rich in excellent editions of Italian and French authors, and is a very material addition to the usefulness of the library.

Through the liberality of a number of citizens of St. Louis, an arrangement has been made by which the privilege of using the Mercantile Library has been extended, under prescribed conditions, to such members of the University as may be designated by the Chancellor.

Property valued at \$66,000 has been given to the University by the late Mr. Stephen Ridgley, of St. Louis, upon the condition that the income shall accumulate until, in the judgment of the Board of Directors, the amount shall be sufficient to erect and maintain a fire-proof Library Building. The gift has been thankfully accepted upon that condition.

GYMNASIUM.

A gymnasium for the use of the Undergraduate Department is supplied with all necessary apparatus. While encouraging and even requiring systematic and wholesome exercise, the University does not wish to foster undue interest in the feats of athletes, and discourages exercises which involve personal risk to the performers. All class exercises are conducted by a professional instructor.

SCHOLARSHIPS.

One *perpetual* scholarship, founded by the payment of \$5,000 and entitling the holder to all the advantages of all the departments of the University forever, has been placed at the disposal of the Mercantile Library Association with the recommendation "that when applicants for scholarship are of equal merit, the preference shall be given to one for some mechanical pursuit."

One scholarship is also held by the ST. LOUIS HIGH SCHOOL which entitles the ranking student of the graduating class of each year to free admission to the Undergraduate Department, in accordance with a resolution of the Board of Directors when the College was organized.

One scholarship is also held by the School Board of Kansas City for the benefit of a graduate of the Kansas City High School. This scholarship entitles the holder (who is to be selected by the School Board) to free

tuition in the College or the School of Engineering. Reports of the standing of the student will be made to said Board annually by the Dean.

A trust fund of \$30,000 has been accepted by the University from the WESTERN SANITARY COMMISSION, for the establishment of TWENTY FREE SCHOLARSHIPS in the Undergraduate Department, to be filled by children or descendants of Union soldiers who served in the late civil war. In default of such applicants, candidates will be appointed by the Chancellor of the University with the advice of the Faculty. Preference is given to those in straitened circumstances, *and no student is accepted or continued who is not of good moral character, who does not sustain satisfactory examinations, or who fails to comply with the rules of the University.*

From the same source a SUSTENTATION FUND of \$10,000 has been accepted, the income of which is expended in aid of students in straitened circumstances, giving preference always to the descendants of Union soldiers, as above.

EXAMINATIONS.

The examinations in the Undergraduate Department are frequent and rigid. No promotions to higher classes are made except upon conclusive evidence that the antecedent subjects have been well mastered. Reports of the standing of individual students will be made by the Deans of the Faculties to parents or guardians, if such are requested.

DEGREES IN THE UNDERGRADUATE DEPARTMENT.

I. IN THE COLLEGE.

The degree of *Bachelor of Arts* is conferred upon the satisfactory completion of the requisite number of courses.

II. IN THE SCHOOL OF ENGINEERING.

1. On the satisfactory completion of four years' work the degree of *Bachelor of Science* is conferred.

2. The professional degrees Civil Engineer, Mechanical Engineer and Electrical Engineer, are conferred only after three or more years of actual and successful engineering practice, one year of which must have been spent in responsible charge of engineering work, and the presentation of an acceptable thesis; both the experience and the thesis to be such as to show an ability to design and execute engineering work.

The Bachelor degrees are in three grades indicated by the words *cum laude*, *magna cum laude* and *summa cum laude*, respectively.

Every member of the graduating class who has attained *ninety per cent* of the maximum mark on the general scale for the four years, may be recommended for a degree *summa cum laude*.

Every member of the graduating class (not recommended for the degree *summa cum laude*) who has attained *eighty-five per cent* of the maximum mark on

the general scale for the four years, may be recommended for a degree *magna cum laude*.

Every member of the graduating class (not recommended for a degree *summa* or *magna cum laude*) who has attained *eighty per cent* on the general scale for the four years, may be recommended for a degree *cum laude*.

No student will be recommended for a degree who has not passed all his examinations successfully and handed in such projects or theses as may be required.

The diploma fee is three dollars, payable in advance.

ADVANCED DEGREES.

The degree of *Master of Arts* is open to all who have received from this University the degree of Bachelor of Arts.

The degree of *Master of Science* is open to all who have received from this University the degree of Bachelor of Science, of Civil Engineer, of Mechanical Engineer, of Electrical Engineer, or of Engineer of Mines.

The degree of *Doctor of Philosophy* is open to all who have received the degree of *Master* from this University.

The degrees of Master of Arts, Master of Science and Doctor of Philosophy are open to graduates of other institutions who shall have satisfied the Faculty of the Undergraduate Department that the courses of study for which they have received degrees are equivalent to those for which such degrees are given in Washington University.

REQUIREMENTS FOR THE MASTER'S DEGREE.

Candidates for the degree of *Master* must offer at least one year's residence at the University, and satisfactory evidence, to be determined by examination, of a proper amount of non-professional study and attainment in advance of undergraduate work, and must present an acceptable thesis based upon such work.

REQUIREMENTS FOR THE DOCTOR'S DEGREE.

The degree of *Doctor* will not be recommended in less than one year after the granting of the Master's degree.

Candidates for the degree of *Doctor* must offer at least one year of residence at the University, and satisfactory evidence, to be determined by examination, of a proper amount of non professional study and attainment in advance of the work required for the Master's degree; and must present an acceptable thesis, the result of original investigation.

Candidates for the degree of *Master*, or that of *Doctor*, must present as early as the first of October of each year a written statement of subjects, courses of study, etc., for the approval of the Faculty.

All these must be presented to the Faculty as early as the fifteenth of May.

The diploma fee is five dollars, payable in advance.

TUITION.

Tuition in the Undergraduate Department is \$150 a year, payable semi-annually, in advance if required, and always before the middle of the term.

A matriculation fee of five dollars is charged to all who enter this Department, payable in advance.

BOARD AND LODGING.

Students living at a distance from the University have no difficulty in securing rooms and board at reasonable rates. The yearly expenses may range between the following estimates, according to taste and habits of economy:—

Tuition.....	\$150 00	—	\$150 00
Board, lodging, and washing, 9 months.....	200 00	to	300 00
Books and instruments.....	10 00	"	20 00
Incidentals.....	15 00	"	30 00
Total for the year.....			\$375 00 to \$500 00

Books and instruments may be obtained at cost from the *Co-operative Association*, organized and managed by the students of this Department.

HENRY SHAW SCHOOL OF BOTANY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

HENRY SHAW SCHOOL OF BOTANY.

ESTABLISHED JUNE 8, 1885.

ADVISORY COMMITTEE.

THE CHANCELLOR OF THE UNIVERSITY, *ex officio.*

WILLIAM G. FARLOW, M. D.

GEO. J. ENGELMANN, M. D.

GEORGE E. LEIGHTON.

WILLIAM L. HUSE.

INSTRUCTORS.

WILLIAM TRELEASE,

DIRECTOR AND

ENGELMANN PROFESSOR OF BOTANY.

WILLIAM H. RUSH,

GENERAL INSTRUCTOR.

HERMANN VON SCHRENK,

INSTRUCTOR IN CRYPTOGAMIC BOTANY.

ELLEN C. CLARK,

ASSISTANT AT THE MARY INSTITUTE.

GENERAL INFORMATION.

In June, 1885, Mr. Henry Shaw, of St. Louis, authorized the Chancellor of the University to place before the Board of Directors a plan of action for the establishment of a School of Botany, as follows:—

That he proposed, with the concurrence of the Directors, to endow a SCHOOL OF BOTANY as a department of Washington University, by donation of improved real estate, yielding over \$5,000 revenue, and to place it in such relation with the largely endowed Missouri Botanical Garden and Arboretum, as would practically secure their best uses, for scientific study and investigation, to the professor and students of the said School of Botany, in all time to come.

At the meeting of the Board of Directors held June 8, 1885, the following resolutions were, therefore, offered, in grateful acceptance of Mr. Shaw's proposal:—

1. That a School of Botany be established as a special department of Washington University, to be known as the Henry Shaw School of Botany.
2. That a professorship of Botany be therein established, to be known as the Engelmann Professorship.
3. That Professor Wm. Trelease, of the University of Wisconsin, be invited to fill the same; his duties to begin at the commencement of the next academic year, September 17.
4. That said School of Botany be placed under the special care and direction of an advisory Committee, to consist of five members, of whom two shall be members of this Board, and two shall be selected outside of the Board,—the Chancellor of the University being a member *ex officio*.

This report was accepted and the resolutions unanimously adopted. The record of such action was then submitted to Mr. Shaw and approved by him.

On this foundation, the School of Botany was opened in the autumn of 1885. In his will, admitted to probate in 1889, Mr. Shaw further provided for the maintenance of the income of the School up to a certain limit, and took steps calculated to secure the proposed close co-operation between the School of Botany and the Botanical Garden.

The laboratory of the School of Botany is temporarily located at 1724 Washington avenue, and a small library, containing the usual laboratory manuals and class books, which is kept at the laboratory for reference, is added to as new books, needed for class work, appear. In addition to alcoholic and imbedded material, a small herbarium is being formed, which is intended to contain representatives of the local flora. Advanced students, some of whose work is done at the Garden, also have the privilege of consulting, under necessary restrictions, the excellent herbarium and library maintained there, and now comprising about 300,000 sheets of specimens, something over 30,000 books and pamphlets, and a large collection of wood veneers and sections; and no effort is spared to make the Garden equipment as complete as possible in any line of work taken up by competent investigators.

The instrumental equipment of the laboratory includes one microscope by Zeiss, with the necessary objectives, ranging from A. A. to 1-18 in. oil immer-

sion, and accessories for spectroscopic studies and work with polarized light; twenty microscopes by Leitz, with the objectives needed for the best work (including five 1-12 in. oil immersion lenses, one 1-16 in. oil immersion, and one 1-20 in. oil immersion), polariscope, camera lucidas of several patterns, etc.; sixteen dissecting microscopes by Bausch and Lomb; two dissecting microscopes by Leitz, one of them provided with camera lucida; a projecting apparatus for delineating objects under a low power of enlargement; a simple outfit comprising all that is necessary for ordinary bacteriological investigation; and the apparatus needed for histological work and elementary physiological experimentation. Students are provided by the laboratory with all necessary instruments and supplies (excepting razors or other cutting instruments) without charge except for breakage or other injury and for slides and cover glasses used for permanent preparations; but when alcohol or other expensive substances are used in quantity, as in work on bacteria, a special charge may be made for material used.

The working year of the School of Botany is of the same extent as that of the Undergraduate Department of the University, and is similarly divided, except for a few special teachers' classes corresponding to the usual school terms.

The work offered students is of two classes: undergraduate studies, including at present fifteen stated electives,—the equivalent of nearly three full years'

work,—and post-graduate or special courses for advanced students, planned in each case to meet the needs of the student. For the convenience of students, nearly all elementary instruction is given at the laboratory, near the other University buildings, where the principal instrumental equipment is kept, but the study of living plants, and advanced herbarium and library work, are provided for at the Garden. All courses capable of being so taught are given in the laboratory, and supplemented by lectures and quizzes by the teacher. The few lecture courses offered are illustrated wherever possible by specimens exhibiting the subject under consideration, and by wall charts and the stereopticon.

A list of the undergraduate electives is given above (p. 31), in the general information concerning the Undergraduate Department. Under the advice of the Dean of the College, and the professor of botany, students who wish to make a specialty of botany through their course may arrange to take all of these electives and to follow them by a piece of investigation on which a thesis is to be based; and regularly enrolled special students who are not candidates for a degree may give the greater part of their time to botanical study, subject to such regulation as is prescribed by the Faculty.

Special classes for the benefit of teachers and other persons not in attendance at the University, are formed from time to time, and such persons may be admitted to any of the regular electives on the payment of a

tuition fee conformed to the general rates of the University, namely, \$15.00 for each full course (of three exercises per week during a semester), and \$7.50 for each half course (of less than three exercises per week for the same length of time). Graduates of the University and of the Mary Institute are not subject to any charge for tuition.

Graduate students who are eligible under the rules of the Faculty to candidacy for higher degrees, if suitably prepared, may elect research work in botany as their principal study for such degrees.

Applications for the formation of special classes, and all correspondence concerning the School of Botany, should be addressed to

WILLIAM TRELEASE,

*Shaw School of Botany,
St. Louis, Mo.*

ST. LOUIS SCHOOL OF FINE ARTS.

(ART DEPARTMENT OF WASHINGTON UNIVERSITY.)

19th Street and Lucas Place.

CALENDAR 1897-98.

FIRST TERM, DAY SCHOOL, begins Monday, September 20, 1897.

FIRST TERM, DAY SCHOOL, ends Saturday, December 11th, 1897.

FIRST TERM, NIGHT SCHOOL, begins Monday, November 1st, 1897.

FIRST TERM, NIGHT SCHOOL, ends Saturday, January 29th, 1898.

SECOND TERM, DAY SCHOOL, begins Monday, December 13th, 1897.

SECOND TERM, DAY SCHOOL, ends Saturday, March 12th, 1898.

SECOND TERM, NIGHT SCHOOL, begins Monday, January 31st, 1898.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 23d, 1898.

THIRD TERM, DAY SCHOOL, begins Monday, March 14th, 1898.

THIRD TERM, DAY SCHOOL, ends Saturday, June 4th, 1898.

EXHIBITION OF STUDENTS' WORK, June 7th-9th, 1898.

1898-1899.

FIRST TERM, DAY SCHOOL, begins Monday, September 19, 1898.

FIRST TERM, DAY SCHOOL, ends Saturday, December 10th, 1898.

FIRST TERM, NIGHT SCHOOL, begins Monday, October 31st, 1898.

FIRST TERM, NIGHT SCHOOL, ends Saturday, January 28th, 1899.

SECOND TERM, DAY SCHOOL, begins Monday, December 12th, 1898.

SECOND TERM, DAY SCHOOL, ends Saturday, March 11th, 1899.

SECOND TERM, NIGHT SCHOOL, begins Monday, January 30th, 1899.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 22d, 1899.

THIRD TERM, DAY SCHOOL, begins Monday, March 13th, 1899.

THIRD TERM, DAY SCHOOL, ends Saturday, June 3d, 1899.

EXHIBITION OF STUDENTS' WORK, June 6th-8th, 1899.

ST. LOUIS SCHOOL OF FINE ARTS.

REORGANIZED MAY 22, 1879.

The establishment of an Art School upon a broad and permanent foundation has always been part of the plan of Washington University. For nearly twenty-five years Art instruction has been embodied in the course of study. In 1875, special students were admitted to the Drawing Department, and class and public lectures were given on Art History. The same year an evening school was opened.

On May 22, 1879, the Directors of the University adopted an ordinance establishing a Department of Art in Washington University, from which the following extracts are taken:—

“A Department of Art is hereby established as a special Department of Washington University, to be known as THE ST. LOUIS SCHOOL OF FINE ARTS.

“The objects of said Department shall be: Instruction in Fine Arts; the collection and exhibition of pictures, statuary, and other works of art, and of whatever else may be of artistic interest and appropriate for a Public Gallery or Art Museum; and, in general, the promotion by all proper means of æsthetic or artistic education.”

BOARD OF CONTROL.

ELLIS WAINWRIGHT, PRESIDENT.
WINFIELD S. CHAPLIN, CHANCELLOR, *ex officio*.
HARRISON I. DRUMMOND.
ALFRED L. SHAPLEIGH.
CHARLES PARSONS.
CHARLES NAGEL.
GEORGE D. BARNARD.
DAVID C. BALL.
HALSEY C. IVES, DIRECTOR, *ex officio*.

OFFICERS AND INSTRUCTORS.

HALSEY C. IVES, DIRECTOR.
ROBERT P. BRINGHURST.
EDWARD M. CAMPBELL.
CHARLES PERCY DAVIS.
JUSTINA V. A. PHILLIPS, LIBRARIAN.
WM. PELL PULIS.
CHARLES F. VON SALTZA.
EDMUND H. WUERPEL.
ALICE M. MORE, SECRETARY.
W. H. PALMER.
CHARLES WARD RHODES.

**NOTE.—All communications in regard to the School should
be addressed: ST. LOUIS SCHOOL OF FINE ARTS.**

GENERAL INFORMATION.

There are three terms in the year.

Students will be admitted at any time, but not for less than one term, except by special arrangement with the Director.

The school furnishes instruction in Drawing, Modeling, Painting, Artistic Anatomy, Perspective, Composition, Architectural and Mechanical Drawing.

The rooms are open for the study of drawing, painting and modeling, every day during each term from 9 a. m. to 4 p. m. and for the study of drawing from the Antique and Life, mechanical drawing and modeling three evenings in the week, from November to May.

Students may enter any class upon submitting examples of work showing the necessary skill. Applicants for admission to the evening Life Class must submit a drawing of a full length figure from the Antique or Life.

Students who can pass the necessary examination may study Modern Languages, History and Literature in classes of the Undergraduate Department of the University.

The school is fully equipped with models, casts from the Antique, *et cetera*.

The class rooms are adjacent to the galleries of the Museum. The building erected during the past year was especially designed to meet the needs of the various classes of the school and, in its appointments, art students will find every convenience for study.

The artists connected with the school as teachers have received their training in the Art Schools of Europe.

All finished work must be left in the school or if removed by special permission, must be returned before the close of the school year for final examination by the committee appointed for that purpose.

Instruction in all classes of the school is individual. Advancement of each student depends on the degree of proficiency only. Students are at liberty to work as much or as little as they desire between the hours of 9 a. m. and 4 p. m.

An admission fee of \$2.00 is charged each student on enrolling in the classes of the day school, and \$1.00 to each student enrolling in the night school.

TUITION FEES.

(Payable in advance to the Treasurer of Washington University.)

To go into effect Sept. 19, 1898.

Tuition per term, with privileges of any or all classes and lectures.....	\$25 00
Saturday Class for adults and juveniles, per term.....	7 50
Evening Class, Antique or Sketching from Life, three times per week for term of twelve weeks.....	5 00
Evening Life Class, three times per week for term of twelve weeks.....	7 50
Evening Class, Elementary, three times per week for term of twelve weeks.....	5 00
Evening Class, Architectural and Mechanical Draw- ing, three times per week for term of twelve weeks.....	5 00
Evening Class, Modeling, three times per week for term of twelve weeks.....	5 00
Students will be admitted to the Day School per month, with the privilege of one or more classes per day. First month.....	12 50
Each following month during the year.....	10 00

PROGRAMME.

MORNING.

Elementary Model and Object Class, daily, from 9 to 12 o'clock.

Antique Class, daily, from 9 to 12 o'clock.

Life Class (model nude) daily (except Saturdays), from 9 to 12 o'clock.

AFTERNOON.

Modeling Class, daily, from 1 to 4 o'clock.

Painting Class (Still-Life, Drapery, etc.), daily, from 1 to 4 o'clock.

Head Painting Class, daily, from 1 to 4 o'clock.

SATURDAY.

Elementary Class, from 9 to 12 o'clock.

Antique Class, from 9 to 12 o'clock.

Sketch Class (models in costume), from 9 to 12 o'clock.

Modeling Class, from 9 to 12 o'clock.

SATURDAY JUVENILE CLASS.

Drawing from objects, from 9 to 12 o'clock.

Modeling, from 9 to 12 o'clock.

NIGHT.

Life Class (model nude), Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Portrait Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Elementary Class in Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Antique Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

**Mechanical Drawing, Monday, Tuesday and Thursday, from
7:30 to 9:30 o'clock,**

**Architectural Drawing, Monday, Tuesday and Thursday, from
7:30 to 9:30 o'clock.**

**Modeling, Monday, Tuesday and Thursday, from 7:30 to 9:30
o'clock.**

Advance students are afforded opportunity for study
from life—draped and nude models—forty hours per
week.

COURSE OF INSTRUCTION.

The course of instruction is as follows:—

ELEMENTARY.

From the beginning the student is taught to draw from the object. Models are provided with simple contours such as casts from leaves, fruit, foliage, Greek vases, architectural forms, fragments of the human figure, etc., and the student is required to make outline and shaded drawings from these until he has fully mastered the difficulties due to the form and position of the object. This method is carried through all grades of the school; no copying of any kind is permitted.

ANTIQUÉ.

In the Antique Class the methods in use are severe and require close observation combined with great patience and perseverance. All stump processes are

discarded; all results are due to careful study and painstaking; no chance is allowed for "accidental effects." The education of the eye is considered of greater importance than the training of the hand, not only in simple line work and the study of superficial forms, but in the general, yet no less certain, laws which underlie and distinguish the work of every great master in sculpture or painting. Little attention is paid to pictorial finish, and in many cases where a tendency toward pictorial finish seems to interfere with the students' progress in acquiring a comprehensive method of drawing, it is rigorously discouraged.

LIFE.

Work in the Life Classes consists in drawing and painting from the living model, both draped and nude, and either from a whole or a portion of the figure, one class being entirely devoted to the study of the head. More attention is given to drawing than to painting, and students who paint are required to draw a portion of the time. In all cases a careful study of the model and conscientious search for contours and construction, requiring continual use of the mind, are insisted upon. No effort is made to bring the students to a uniformity of method; except to the extent of instructing them to see forms as they really exist; beyond this each student is permitted to develop or follow a style of his own. Special attention is given to the importance of viewing the subject to be placed upon the paper as a whole, thus bringing the parts of the figure into

proper subordination and avoiding the natural tendency to exaggerate the importance of details. Special emphasis is placed on the importance of self-reliance in the determination of the form of each portion of the figure, and of bestowing as conscientious care upon the modeling of the hand and foot as upon the expression of the face, with the purpose of training the eye to comprehend and the hand to reproduce precisely what is seen and not what may be known to exist from a general knowledge of the subject or from any preconceived ideas of whatever kind. This method is carried to the smallest details with the intention of compelling the student to rely entirely on the natural form which is before him.

MECHANICAL AND ARCHITECTURAL DRAWING.

Classes in these subjects are only held at night. Owing to the variety of knowledge and ability possessed by the student, the instruction is largely individual.

Mechanical drawing includes the following branches:

- I. Plane Geometrical Drawing, Orthographic Projection, Intersection of Solids and Development of Surfaces.
- II. Drawing of Machine Details from measurement.
- III. The making of Assembled Drawings.
- IV. Tracing.

The purpose of the instruction is to teach students how to make practical working drawings, and to read them with ease.

In the Architectural Drawing Class beginners are taught how to use their instruments, and to make neat and accurate line drawings. Instruction is given in the preparation of plans, elevations and working drawings for various kinds of buildings. Advanced students are taught Perspective Drawing, and the Drawing of ornamental forms for decorative purposes.

MODELING.

The work of modeling in the day class of the school is intended principally to supplement the work in drawing and painting, for the purpose of giving students a more detailed knowledge of the form and structure of the models which they have studied in their work in drawing. In the night class the work is quite different. Most of the students are artisans who desire to acquire a knowledge of modeling for specific purposes, principally for use in exterior decoration and in architectural work. On account of this difference the work in the day class is of a more general character, and intended more to cultivate the mind, while that of the night class is necessarily special in character, and intended more particularly to give the hand skill in producing well-known forms.

LECTURES.

From time to time class and public lectures are given on subjects pertaining to art history and on other allied subjects, which it is thought may be for the benefit of the students. These lectures are arranged, not only for the purpose of instructing the student by the matter directly presented, but to awaken a desire

for information on a variety of subjects, literary and historical as well as artistic, and to suggest a proper course of reading for the prosecution of any line of study which individual taste may prefer. Some are purely technical and deal with the various methods employed at different periods, while others are informal and conversational. All are intended to give the student the latest and best information on the subjects treated, and wherever possible are illustrated either by models and objects or stereopticon views.

All lectures are given by specialists; the general subjects treated are history, literature, philosophy, anatomy, perspective, decorative design.

During the year 1896-97, there were given class and general lectures on the following subjects:—

HISTORY OF PAINTING.—	Prof. H. C. Ives.....	1
	Mr. Chas. F. von Saltza...	2
	Miss A. M. More.....	18
		— 21
COMPOSITION.—	Prof. H. C. Ives.....	1
	Mr. E. H. Wuerpel.....	20
	Mr. Chas. F. von Saltza...	11
	Mr. Chas. Percy Davis....	9
	Mr. Robert P. Bringhurst..	5
		— 46
MUSEUM COLLECTIONS.—	Prof. H. C. Ives.....	2
	Mr. E. H. Wuerpel.....	2
	Mr. Chas. F. von Saltza...	2
	Mr. Chas. Percy Davis....	1
	Mr. Chas. W. Khodes.....	2
	Mr. E. M. Campbell.....	6
	Mr. R. P. Bringhurst....	2
		— 17
PERSPECTIVE.—	Mr. M. P. McArdle.....	12
		— 12
	Total,	96

COLLECTIONS.

The Museum of the school contains a carefully selected collection of about five hundred casts from antique and mediæval sculpture, and several marbles and works in bronze; also collections of examples of art work in porcelain, glass, metal and wood (originals and reproductions), and of fistic ivories and laces.

The Picture Galleries contain a collection of paintings, rare engravings and etchings. Examples are added, when possible, with a view to affording the student the best possible opportunity for pursuing the study of art history by such subjects.

Students are free to visit the galleries of the Museum at all times when open. Every possible advantage will be afforded them for work.

The collections for the use of students comprise: Several hundred autotype reproductions, from sketches, studies and paintings by celebrated masters from the fifteenth century to the present time; a set of carbon prints (numbering 1,041) illustrating the historical development of art made from various collections of the British Museum. The latter is divided into six parts: I. Prehistoric and Ethnographical Series; II. Egyptain Series; III. Assyrian Series; IV. Grecian Series; V. Etruscan and Roman Series; VI. Mediæval Series.

A Reference Library is being formed for the use of students. The reading room has on file the leading art magazines of the world.

The reading room is open daily from 9 a. m. to 5 o'clock p. m. and on such evenings of the week as the work of the school may demand. The current art publications and monthly publications of current literature are on file.

It is the intention of the authorities of the school to add books of reference as rapidly as possible to those already acquired.

The Awards in the School of Fine Arts for the year 1896-97 were as follows:—

June 10, 1897.

PROF. HALSEY C. IVES,

Director St. Louis School of Fine Arts.

DEAR SIR:—The Jury of Awards appointed to judge the work submitted in competition for honors for the year 1896-97 takes pleasure in congratulating you and your fellow workers and the students upon the very high order of excellence which marks the exhibition. The judges found themselves seriously embarrassed in selecting the best because of this general superiority and wished many times that the number of honors had been greater.

The following are recommended:—

ANTIQUÉ CLASS.

75 Miss Evelyn Fitch 1st, Silver Medal.

28 Miss Lotta Shank 2nd, Bronze Medal.

22 Mr. Louis F. Gruner 3rd, Honorable Mention.

STILL LIFE PAINTING CLASS.

66 Mrs. S. G. Hirst 1st, Silver Medal.

21 Miss Eulabee Dix 2nd, Bronze Medal.

142 Miss E. Mansfield 3rd, Honorable Mention.

PORTRAIT CLASS IN BLACK AND WHITE.

- 3 Mr. Geo. A. Harker 1st, Bronze Medal.
20 Miss Emilie M. Gross 2nd, Honorable Mention.

PORTRAIT CLASS IN COLOR.

- 10 Mr. Robert A. Kissack 1st, Gold Medal.
1 Mr. Geo. C. Aid 2nd, Silver Medal.

LIFE CLASS IN BLACK AND WHITE.

- 99 Miss Emma Siboni 1st, Bronze Medal.
16 Mr. J. Oliver Spurr 2nd, Honorable Mention.

LIFE CLASS IN COLOR.

- 10 Mr. Robert A. Kissack 1st, Gold Medal.
20 Miss Emilie M. Gross 2nd, Bronze Medal.
13 Miss Alice M. Beach 3rd, Honorable Mention.

COMPOSITION CLASS.

- 3 Mr. Geo. A. Harker 1st, Silver Medal.
87 Miss Bertha E. Hunter 2nd, Bronze Medal.

SATURDAY SKETCH CLASS IN COLOR.

- 10 Mr. Robert A. Kissack 1st, Gold Medal.
3 Mr. Geo. A. Harker 2nd, Bronze Medal.

SATURDAY SKETCH CLASS IN BLACK AND WHITE.

- 79 Mr. L. Sanford 1st, Book.
35 Mr. H. Jas. Lowell 2nd, Honorable Mention.
22 Mr. Louis F. Gruner 3rd, Honorable Mention.

MODELING CLASS FROM LIFE.

- Miss Clara Pfeiffer 1st, Silver Medal.
Miss Florence Sharman 2nd, Bronze Medal.

MODELING FROM ANTIQUE.

- Mrs. E. H. Goodrich 1st, Honorable Mention.
The Wayman Crow Medal awarded to Miss Nancy L. Scales

Respectfully yours,

(Signed)

JAMES WILLIAM PATTISON,
Chairman of the Jury.

THE ST. LOUIS MUSEUM OF FINE ARTS.

The Museum of Fine Arts has a valuable permanent collection of statuary, paintings, pottery, carvings, etc., which affords the public, as well as students, an indispensable aid to the study of art. And in order that opportunity may be given for studying the methods of the different schools of painting and the works of celebrated artists, arrangements have been made for a series of fine exhibitions of oil and water color paintings, architectural drawings and engravings.

Any one desiring to become a member of the Museum of Fine Arts may do so by the annual payment of \$10.00. This membership entitles him, with his family and non-resident guests, to the privilege of visiting the Museum at all times when open to the public, and to all lectures, receptions, and special exhibitions given under the auspices of the Board of Control.

SCHOOL OF FINE ARTS.

Students enrolled from date of issue of last catalogue,
February 1st, 1897, to January 1st, 1898.

FULL TIME STUDENTS.

NAME.	RESIDENCE.
Atkinson, May.....	3002 Lafayette av.
Ball, Emma.....	3308 Shenandoah st.
Barrington, Katherine.....	St. Paul, Minn.
Beach, Alice May.....	4464 Labadie av.
Bell, Cora.....	Hillsboro, Ill.
Benson, Beatrice	West Plains, Mo.
Bollman, Adele.....	1115 Dillon st.
Boyer, Evelyn.....	Easton, Mo.
Brokaw, Anna Clotilde.....	3200 Lucas av.
Cartwright, Amanda Holman.....	Verrell, Tex.
Chamberlain, Mary Ann	6218 Wagner av.
Chopin, Lelia.....	3317 Morgan st.
Cogswell, Catherine Diggs.....	4211 Page av.
Dozier, Martha Elizabeth.....	Nashville, Tenn.
Eno, Julia Coalter.....	3874 Washington av.
Federer, Charles Aloyius.....	908 Russell av.
Fitch, Evelyn.....	4943 Reber pl.
Fitzgerald, Denis James.....	2408 N. Grand av.
Franklin, Ethel Chandler.....	Kirkwood, Mo.
Gray, Florence Isabella.....	1139 Walton av.
Goodrich, Ella Hunter.....	3663 Blain av.
Gross, Emilie Mary.....	Webster, Mo.
Gruner, Louis Frederick.....	10 Nicholson pl.
Harker, George Albert.....	2940 Laclede av.
Harris, Florence Ilse.....	Waverly pl.

NAME.	RESIDENCE.
Hazard, Grace	Kirkwood, Mo.
Heltzell, Ida Grace.....	3119 Franklin av.
Hinckley, Theodore Charles.....	3010 Locust st.
Houck, Tula Vivian.....	1742 Waverly pl.
Hurlbut, William James.....	Belvedere, Ill.
Ittner, Anne Rebecca	2103 Park av.
Jenkins, Henrietta Averil.....	1362 Bayard av.
Knapp, Genevieve.....	4467 Lindell av.
Knapp, Lucie B.....	3528 Olive st.
Lesser, Eva.....	3512 Chestnut st.
Lippincott, Eleanor Edwards.....	Webster Groves.
Lodge, Beatrice Sailor.....	2106 Lafayette av.
Lovell, Florence Carolena	3419a Bell av.
Lowell, James Henry.....	Holton, Kas.
Malin, Belle Augusta.....	3634 Russell av.
Magee, Thomas Henry.....	1207 Tyler st.
Mansfield, Emily.....	4934 Berlin av.
Matthews, Lillian K.....	4130 West Bell pl.
MacAdam, Davis Hastings.....	Kirkwood, Mo.
McKeen, Emma Catherine.....	3749 Delmar av.
McShan, Loutie.....	Verona, Miss.
Menne, Laura Estelle.....	4387 W. Pine.
Middleton, James.....	7811 S. 6th st.
Nickerson, Edmonda Augusta.....	Warrensburg, Mo.
Pearce, Florence May.....	Jerseyville, Ill.
Pattison, Alice M. G.....	4245 Olive st.
Ringen, Hattie.....	4367 Delmar av.
Rosebrough, Lee	4733 Hammett pl.
Sayers, Frank Charles.....	2139 Clark av.
Scales, Nancy Logan	1210 Goodfellow av.
Schrader, Walter Roland.....	3106 Rauschenbach av.
Sharman, Florence.....	2124 S. Compton av.
Smith, Bettie	Malvern, Ark.
Snyder, Elizabeth.....	4054 McPherson av.
Souther, Mary Lizzie.....	4329 West Bell pl.

NAME.	RESIDENCE.
Stafford, Vida.....	Trenton, Tenn.
Steinburgge, Harry Edward	Hillside P. O., Mo.
Stone, Jasmine Edson.....	5562 Clemens av.
Spurr, John Oliver.....	5356 Page av.
Sullivan, Ella Mary.....	3228 Pine st.
Tidball, Edna Austin.....	Fort Worth, Tex.
Trares, August.....	5463 Vernon av.
Treloar, William Mitchelson.....	Mexico, Mo.
Trueblood, Stella.....	939 Ailanthus st.
Untersinger, Bernard Fr.....	3146 Arsenal st.
Wand, Ollie Jessie.....	3845 Page av.
Westervelt, Robert Davis.....	6301 S. Sixth st.
Willensen, Lillie Elise	1729 Mississippi av.
 Students working full time.....	73
Students working part time....	70
Students working in Night Classes.....	116
 Total number enrolled	259

ST. LOUIS LAW SCHOOL.

(LAW DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR 1897-98.

LAW SCHOOL opens Thursday, September 23, 1897.

HOLIDAY, THANKSGIVING DAY, Thursday, November 25, 1897.

VACATION, December 24, 1897, to January 2, 1898, inclusive.

HOLIDAY, WASHINGTON'S BIRTHDAY, Tuesday, February 22, 1898.

UNIVERSITY HOLIDAY, Friday, May 13, 1898.

COMMENCEMENT, Thursday evening, June 16, 1898.

VACATION, from June 16 to Thursday, September 22, 1898.

EXAMINATIONS FOR ENTRANCE TO SENIOR CLASS, Tuesday, September 20, 1898.

LAW SCHOOL opens Thursday, September 22, 1898.

HOLIDAY, THANKSGIVING DAY, Thursday, November 24, 1898.

VACATION, from December 24, 1898, to January 1, 1899, inclusive.

LAW SCHOOL.

FACULTY.

**WINFIELD S. CHAPLIN, LL.D.,
CHANCELLOR OF WASHINGTON UNIVERSITY.**

**WILLIAM S. CURTIS, LL.B.,
DEAN OF THE LAW FACULTY.**

**RODERICK E. ROMBAUER (PRESIDING JUSTICE ST. LOUIS
COURT OF APPEALS),
PROFESSOR, REAL PROPERTY LAW AND EQUITY.**

**AMOS M. THAYER, LL.D. (JUDGE OF U. S. CIRCUIT COURT
OF APPEALS),
PROFESSOR, LAW OF CONTRACTS AND COMMERCIAL LAW.**

**CHARLES P. JOHNSON, A. M.,
LECTURER, CRIMINAL LAW.**

**FREDERICK N. JUDSON, LL.D.,
LECTURER, CONSTITUTIONAL LAW.**

CHARLES NAGEL, LL.B.,
LECTURER, CORPORATIONS.

JAMES O. BROADHEAD, LL.D.,
LECTURER, INTERNATIONAL LAW.

EDWARD C. ELIOT, LL.B.,
LECTURER, SALES AND BAILMENTS.

FREDERICK A. WISLIZENUS, LL.B.,
LECTURER, ADMINISTRATION.

ISAAC H. LIONBERGER, A. M.,
LECTURER, STATUTES OF LIMITATIONS AND FRAUDS.

PAUL F. COSTE, LL.B.,
LECTURER, AGENCY.

PENDLETON TAYLOR BRYAN, LL.B.,
LECTURER, TORTS AND NEGLIGENCE.

JACOB KLEIN, LL.B., (JUDGE OF ST. LOUIS CIRCUIT COURT)
LECTURER, ADVANCED CLASS.

LEE SALE, LL.B.,
LECTURER, PARTNERSHIP.

C. O. BISHOP, LL.B.,
LECTURER, CRIMINAL LAW.

EDWARD S. ROBERT, LL.B.,
LECTURER, EVIDENCE.

ADVISORY AND EXAMINING BOARD.

DAVID J. BREWER, Justice of U. S. Supreme Court.
SAMUEL TREAT, LL.D., U. S. District Judge (retired).
SHEPARD BARCLAY, late Justice of the Supreme Court of Missouri.
WARWICK HOUGH, late Justice of the Supreme Court of Missouri.
SEYMOUR D. THOMPSON, late Judge of St. Louis Court of Appeals.
WILLIAM H. BIGGS, Judge of St. Louis Court of Appeals.
HENRY W. BOND, " " " " "
R. A. BAKEWELL, late Judge of St. Louis Court of Appeals.
DANIEL DILLON, late Judge of St. Louis Circuit Court.
LEROY B. VALLIANT, Judge of St. Louis Circuit Court.
JACOB KLEIN, " " " " "
JAMES E. WITHROW, " " " " "
DANIEL D. FISHER, " " " " "
J. GABRIEL WOERNER, late Judge of St. Louis Probate Court.
ELMER B. ADAMS, Judge of U. S. District Court.
WILBUR F. BOYLE, late Judge of St. Louis Circuit Court.
GEORGE W. LUBKE, " " " " " "
JAMES A. SEDDON, " " " " " "
JOHN W. NOBLE, Ex-Secretary of the Interior.
HENRY S. PRIEST, late U. S. District Judge.
HORATIO D. WOOD, Judge of St. Louis Circuit Court.

EDWARD C. KEHR,	HUGO MUENCH,
ARBA N. CRANE,	ELENEIOUS SMITH,
JAMES TAUSSIG,	JAMES P. DAWSON,
JOHN W. DRYDEN,	DAVID GOLDSMITH,
EDWARD CUNNINGHAM, JR.,	JOHN A. HARRISON,
GEORGE H. SHIELDS,	*CHARLES. S. TAUSSIG,
JOHN P. ELLIS,	GARLAND POLLARD,
CHARLES CLAFLIN ALLEN,	WELLS H. BLODGETT,
JOHN M. HOLMES,	E. T. ALLEN,
HENRY A. KENT,	JOHN F. LEE.
JAMES P. MAGINN,	JOHN D. DAVIS,
LEVERETT BELL,	JAMES L. BLAIR,
EDWARD T. FARISH,	WILLIAM B. HOMER,
EVERETT W. PATTISON,	FRED'K W. LEHMANN,
JOHN. E. McKEIGHAN,	THOMAS K. SKINKER,
SILAS B. JONES,	ROBERT F. WALKER,
TRUMAN A. POST,	Of the St. Louis Bar.

* Deceased, January 21st, 1896.

COMMITTEES OF EXAMINATION.

FOR THE YEAR 1897.

For the Examination of Candidates for Graduation.

JAMES P. MAGINN,
EDWARD T. FARISH,
SILAS B. JONES,
JAMES P. DAWSON,
FREDERICK W. LEHMANN,
THOMAS K. SKINKER,
ROBERT F. WALKER,
of the St. Louis Bar.

For the Award of a Prize of Fifty Dollars for the best Graduation Thesis.

JOSEPH L. HORNSBY,
CLIFFORD L. MOTT,
STANLEY STONER,
of the St. Louis Bar.

HONORS, 1897.

PRIZE ESSAYIST,

LIEUT. WILLIAM H. JOHNSTON, U. S. A.

The Juniors who passed all the Junior examinations with an average grade of eighty per cent., or over, and are therefore entitled to enter the Senior class *cum laude* are:—

- HENRY A. HAMILTON, St. Louis, Mo., 91.60.
HENRY H. OBERSCHELP, St. Louis, Mo., 89.97.
JOHN B. EDWARDS, Upper Alton, Ill., 86.89.
FORD W. THOMPSON, St. Louis, Mo., 85.90.
JOHN H. DOUGLASS, JR., St. Louis, Mo., 85.80.
EDWARD H. BICKLEY, St. Louis, Mo., 85.59.
*EDWARD T. MAHONEY, Alton, Ill., 84.76.
JOHN DILLON, St. Louis, Mo., 84.50.
CORA D. MILLIGAN, St. Louis, Mo., 84.22.
PHILIP W. HABERMAN, St. Louis, Mo., 84.
DOUGLAS W. ROBERT, St. Louis, Mo., 83.67.
EDWARD F. GARESCHE, St. Louis, Mo., 83.58.
JAMES E. DAME, Princeton, Ind., 83.56.
HENRY J. FAHLE, St. Louis, Mo., 83.50.
JOHN B. DENVIR, JR., St. Louis, Mo., 82.99.
CLAUDE D. HALL, Arcola, Ill., 81.21.
CHAUNCEY C. SHAW, St. Louis, Mo., 80.13.
DUNBAR HUNT, JR., St. Louis, Mo., 80.04.
KENT K. KOERNER, Belleville, Ill., 80.04.

*Deceased, August 10th, 1897.

ADVANCED CLASS.

ADDRESS.

Baker, Henry A. (LL.B., 1897, Washington University).....	3121 Washington av.
Beck, George F. (LL.B., 1896, Washington University).....	Laclede bldg.
Grossman, E. M.....	Laclede bldg.
Ewing, Mark.....	411 Olive st.
Jones, Alfred H. (LL.B., 1895, Washington University).....	Security bldg.
Reiss, Paul (LL.B., 1897, Washington University).....	Union Trust bldg.
Shepley, Arthur B. (LL.B., 1897, Washington University).....	Security bldg.
Smith, Luther E. (LL.B., 1897, Washington University).....	3121 Washington av.
Thompson, Lewis W. (LL.B., 1896, Washington University).....	Rialto bldg.
Weitzel, George F. (LL.B., 1897, Harvard University).....	Union Trust bldg.
Wetzel, Augustus E. (LL.B., 1895, Washington University)	Commercial bldg.

SENIOR CLASS.

CITY RESIDENCE.

Anderson, Thomas Lilbourne (A. B., 1896, Central College), Louisiana, Mo.	2631 Locust st.
Austin, James Brewster, Jr., St. Louis,	7039 Horner av.
Barret, Peter T., St. Louis.....	3507 Manchester av.
Bickley, Edward Hart, St. Louis.	5035 Minerva av.
Biggs, Davis, St. Louis.....	4434 Forest Park boul.
Breuer, Ransom A., Red Bird, Mo.....	3010 Adams st.

CITY RESIDENCE.

- Brinkman, Ferdinand Carl, St. Louis... 1083 S. 8th st.
Bryson, M. Dee, Paris, Texas.....
Buder, Eugene, St. Louis..... 3821 Shenandoah st.
Burleigh, George P., (A. B., 1894, St.
Louis University), St. Louis..... 3083 Morgan st.
Chappell, Edwin Rutherford, St. Louis.. 3811 Westminster pl.
Chipman, George Ernest, (A. M., 1895,
Harvard University), Upper Alton, Ill.
Clarke, Owen J., (A. B., 1895, St. Louis
University), St. Louis..... 3133 Eads av.
Cocke, William Horner, (C. E. Va.
Military Institute), Petersburg, Va... 2856 Russell av.
Denvir, John B. Jr., (A. B., 1896, St.
Louis University), St. Louis..... 3489 Pine st.
Dillon, John, (A. M., 1896, Georgetown
University), St. Louis..... 4309 Pine st.
Douglass, John H. Jr., (A. B., 1896,
Yale University), St. Louis..... 16 Vandeventer pl.
Dunn, Ballard, St. Louis..... 2102 Clifton av.
Edwards, John Blair, (B.P., 1896, Brown
University), Upper Alton, Ill..... 3028 Locust st.
Fable, Henry John, St. Louis..... 1521 Destrehan st.
Garesché, Edw. F., (A. B., 1896, St.
Louis University), St. Louis..... 340 N. Spring av.
Grier, Robert Cooper, St. Louis..... 3126 Lucas av.
Guetlig, Charles E., Edwardsville, Ill...
Gurley, Herman Squire, (B. S., 1896,
La Grange College), Barnard, Kas.... 2632 Locust st.
Haagen, Emil C., Alton, Ill.....
Haberman, Phillip William, St. Louis... 3329 Chestnut st.
Haid, George F., St. Louis..... 4738 Hammet pl.
Hall, Claude Dudley, (Ph. B., 1896, De-
Pauw University), Arcola, Ill..... 1829 Olive st.
Hamilton, Henry Alexander, St. Louis.. 2329 St. Louis av.

CITY RESIDENCE.

- Hammers, Fred. Ketcham, (A. B., 1896,
 Kansas University), Lawrence, Kas... 1804 Locust st.
Hannauer, Charles Edward, St. Louis... 2002 Victor st.
Harvey, Julian C., Kirkwood, Mo.....
Hufft, Bernard Fellows, St. Louis..... 3723 Cook ave.
Hunt, Dunbar Jr., St. Louis..... 3546 Washington av.
Kersting, Henry A., St. Louis..... 1504 S. 11th st.
Koehler, Max, St. Louis..... 22 Nicholson pl.
Koerner, Kent K., Belleville Ill.....
Lackland, Edgar C. Jr., (A. B., 1896,
 Yale University), St. Louis..... 4429 Westminster pl.
McNamara, William Louis, Keokuk, Ia. 218 N. Grand av.
Merryman, Robert H., (B. S., 1896,
 Bethany College), St. Louis..... 5936 W. Cabanne pl.
Milligan, Cora D., St. Louis..... 2703a St. Vincent av.
Noonan, Edward A. Jr., St. Louis..... 1835 Madison st.
North, Flavius J., (A. M., 1895, Central
 College), Labadie, Mo..... 4122 Delmar av.
Norton, Alexander Turner, Troy, Mo...
Oberschelp, Henry H., (A. B., 1896,
 Washington University), St. Louis... 2550a St. Louis av.
O'Reilly, Matthew P., (A. B., 1896,
 Christian Bros. College), St. Louis... 917 Benton st.
Robbins, Alexander Henry, St. Louis... 4465 Greer av.
Robert, Douglas W., St. Louis..... 2922 Washington av.
Rodgers, William L., St. Louis..... 3023 Locust st
Rucker, John F., St. Louis..... 2922 Dickson st.
Safford, George, St. Louis.....
Shaw, Chauncy C., St. Louis..... 4035 Olive st.
Sheridan, William P., St. Louis..... 2350 Mullanphy st.
Smith, Griswold, (A. B., 1896, Yale
 University), St. Louis..... 2621 Locust st.
Spaulding, Wilbur Berry, (A. M., 1881,
 Iowa Wesleyan University), St. Louis 714 Leonard av.
Stallings, Thomas, Alhambra, Ill..... 1627 Washington av.

CITY RESIDENCE.

Thompson, Ford William, (A. B., 1895,
 Yale University), St. Louis..... 3803 Westminster pl.
 Walsh, Edward Perry, St. Louis..... 3526 Laclede av.
 Wehrenbrecht, William, St. Louis..... 1415 Palm st.

JUNIOR CLASS.

Babbitt, Byron Fenner, St. Louis..... 3638 Pine st.
 Barker, Horace Holt, St. Louis..... 3939 Castleman av.
 Beall, Burns W., St. Louis..... 5735 Bartmer av.
 Berry, Harold R., St. Louis.....
 Birge, James Patrick, St. Louis..... 2949 Euclid av.
 Blake, John Sheer, St. Louis..... 4413a Page av.
 Bland, Theodoric Richard, (A. B., 1897,
 Christian Bros. College), Lebanon,
 Mo..... 3132 Washington av.
 Boehmen, Lotta, St. Louis..... 1643 Texas av.
 Boehmen, Louis L., St. Louis..... 1643 Texas av.
 Boemler, Henry William, St. Louis..... 4053 McPherson av.
 Bradley, George Edwin, St. Louis..... 3934 Washington av.
 Brandenburger, William A., St. Louis... 2348 Hickory st.
 Bryson, James Harper, (Ph. B., 1897,
 Yale University), St. Louis..... 3833 Pine st.
 Budor, Oscar E., St. Louis..... 2023 Park av.
 Caldwell, Bert., East St. Louis.....
 Carter, Samuel Marion, (B. L., 1896,
 Westminster College), Patterson, Mo. 5524 Maple av.
 Cayce, Julian Paul, (A. B., 1896, West-
 minister College), Farmington, Mo... 2828 Pine st.
 Chaplin, Trescott Fox, (M. A., 1897,
 University of Chicago), St. Louis..... 3636 Pine st.
 Chipley, Russell Allen, Old Orchard, Mo
 Clark, W. Christy, Montgomery City,
 Mo..... 1804 Locust st.

CITY RESIDENCE.

Cleary, William Thomas, St. Louis.....	4134 Cook av.
Coates, Joel S., Moberly Mo.....	2806 Dayton st.
Cordell, Robert V. M., St. Louis.....	2632 Locust st.
Dale, George Irving, St. Louis.....	3059 Sheridan av.
Dammert, Louis A., St. Louis.....	4166 Cleveland av.
D'Arcy, Edward, St. Louis.....	5884 Bartmer pl.
Dillon, Paul, (A. M., 1897, Georgetown University), St. Louis.....	4389 Pine st.
Dockery, James D., St. Louis.....	3875 Delmar av.
Emerson, Clyde Caldwell, Eddy, N. M.	3609 Page av.
Fechte, John L., Venice, Ill.....	
Fenn, Bertrand Frederick, St. Louis...	2331 Eugenia st.
Franck, Charles Hugo, St. Louis.....	2124 Oregon av.
Furth, Henry H., St. Louis.....	5079 Delmar av.
Gaines, S. S., Mosell, Shelby Co., Mo...	2019 Wash st.
Golterman, Guido E., St. Louis.....	7019 Michigan av.
Guels, Walter C., St. Louis.....	3336 Caroline st.
Hansman, Albert Excelsior, St. Louis...	1307 N. Broadway.
Hennings, Thomas C., St. Louis.....	2618 Rutger st.
Hilton, Warren, (A. B., 1895, Washing- ton University), St. Louis	4063 Castleman av.
Hirsch, Jacob Klein, Vicksburg, Miss...	
Hockdoerfer, Anthony, St. Louis.....	305 Sidney st.
Hollmann, Frederick G., St. Louis.....	
Hoolan, Thomas Joseph, St. Louis.....	4542 Laclede av.
Hopkins, Willard Thomas, Fort Branch, Ind.....	3150 Locust st.
Jinnett, W. R., (A. B., 1894, Bethany College), East St. Louis.....	
Jones, William Thomas, (B. L., 1896, Mo. State University), Humphreys, Mo.....	1333 Washington av.
Kase, Clarence Theodore, Chillicothe, Mo.....	3025 Locust st.
Kelly, John J., St. Louis.....	3535 Page av.

	CITY RESIDENCE.
Kenna, Ernest M., St. Louis.....	3956 W. Belle pl.
Kuehl, F. William, St. Louis.....	2825 S. 18th st.
Laughlin, George J., Louisville, Kas....	105 S. 22nd st.
Lee, Edwin Waterman, (A. B., 1897, Williams College), St. Louis.....	3114 Washington av.
Leonard, Harry W., Alton, Ill.....	
Lindsay, Benjamin C., St. Louis.....	3138 Washington av.
Lord, John King Jr., (A. B., 1895, Dart- mouth College), St. Louis.....	4264 Delmar boul.
McIntire, Rolla Manford, Mexico, Mo..	
Menown, John, St. Louis.....	3510 Easton av.
Methudy, Adolph Edward, St. Louis...	1800 Waverly pl.
Moser, John Freas., Hastings, Minn...	1522 Washington av.
Muth, John B., St. Louis.....	928 Manchester av.
Nicholson, Clara B., St. Louis.....	516 Garrison av.
Nowlin, Samuel S., (A. B., 1897, William Jewell College), Mont- gomery City, Mo.....	1804 Locust st.
O'Donnell, Eugene, St. Louis.....	1912 Carr st.
O'Hallaron, Anthony A., St. Louis....	1811 Ohio av.
O'Neil, David N., St. Louis.....	4470 Fullerton pl.
Pape, Fanny, St. Louis.....	962 Chouteau av.
Phillip, Maurice Randall, Mexico, Mo..	
Plaisted, Harold Mason, (M. E. 1883, Stevens Inst. Tech.,) St. Louis.....	3033 Pine st.
Rhodes, Arthur M., St. Louis.....	4414 Washington av.
Rollman, Edmund A., St. Louis.....	2609 Louisiana av.
Rudolph, Edward E., St. Louis.....	4329 N. 14th st.
Ryan, Dennis A., St. Louis.....	2513 Mullanphy st.
Scheve, Louis J., Mascoutah, Ill.....	2025 Rutgers st.
Schroeder, William H., St. Louis.....	1802 California av.
Smith, Don Carlos, Springfield, Mo.....	1431 Locust st.
Smith, James W., (M. D., 1890, Mo. Medical College), St. Louis.....	2301 Washington av.
Snedeker, Isaac D., Jerseyville Ill.....	3303 Pine st.

CITY RESIDENCE.

Sprague, Harry E., St. Louis..... 3956 Delmar av.
Starke, LeRoy Bruce, Butler, Mo.....
Stone, J. Vincil, Johnson Co., Mo..... 2640 Washington av.
Stuart, Charles F., (A. B., 1897, Creigh-
ton University, Omaha), Walnut, Ia. 2980 Washington av.
Thatcher, Charles W., St. Louis..... 5060 Morgan st.
Trevathan, Joseph L., Springfield, Mo.. 1726 Locust st.
Tyrrell, Morton H., St. Louis..... 3869 Windsor pl.
Voyles, David William, Jr., St. Louis... 3016 Franklin av.

Advanced Class.....	11
Senior Class.....	59
Junior Class.....	85
Total,	155

HISTORICAL AND DESCRIPTIVE.

The Law School was founded in the year 1867 by the united efforts and counsels of the Directors of Washington University and of members of the profession actually in practice or then on the bench in the city of St. Louis. Feeling the importance of more thorough education in the Law than is usually required as a condition for admittance to the bar, they resolved to found a school which should give the best and most complete course of legal study possible within two years, and should be so constructed as to make its diploma an indisputable proof of the attainment of a high and uniform standard, without reference to numbers or to the support of the school from tuition fees. With that end in view the organization was adopted which has ever since been maintained. The University adopted the school as one of its departments, appointed the Dean and Faculty, and has always provided for its maintenance and has granted its degrees to the graduates. But the oversight of the course of study and the examination of candidates for such degrees were committed to an Advisory and Examining Board, composed of Judges of Federal and State Courts and members of the St. Louis Bar, distinguished for their talents and general and legal erudition, by whose committees those examinations are always conducted, and whose award is conclusive. These committees prepare the questions upon each topic, and pass upon the candidates'

answers, under a system which secures the absolute impartiality of the result; the papers being distinguished by numbers only, and the name of the candidate represented by each number being unknown to the examiner. The papers of a candidate must reach the fixed standard of merit required by the committee or he will fail to pass, without even his name being known to them. Those who reach that standard are recommended to the University Directors for the degree of Bachelor of Laws (which is by law an admission to the bar.)

In consequence of this organization the school is known alike as the Law Department of Washington University, and as the St. Louis Law School. First opened to students September 16, 1867, it has now been in successful and unbroken operation for thirty years. In the city of St. Louis, during nine months in the year, besides the ordinary municipal and inferior courts, there are in almost uninterrupted session the Appellate, Circuit and District Courts of the United States, taking cognizance of questions in Admiralty and Revenue Law, as well as the causes at Common Law and Equity; also the Circuit and Criminal Courts of the State, and the St. Louis Court of Appeals—in one or other of which are constantly illustrated the learning and practice of every department of American jurisprudence.

ENDOWMENT AND EDIFICE.

To insure the perpetual maintenance of its course, by the generous public spirit of a few friends, an endow-

ment now amounting to *seventy-seven thousand dollars* has been given, and invested in good securities in the name of Washington University, in trust for the perpetual support of the Law Department; the interest of such fund to be used for that purpose. It is hoped that this fund will be enlarged by other gifts.

The Directors of Washington University have formally dedicated to the use of the Law Department, rent free forever, the building now occupied by the Law School. This is a large and commodious building of three stories, No. 1417 Lucas Place, standing upon its own grounds, with a frontage of *one hundred feet* upon Lucas Place, the most convenient location in the city for such an institution. All the lecture and recitation rooms of the various classes, the libraries, Dean's office, society rooms, etc., are concentrated in this building, and the best accommodations for students may be found in the part of the city surrounding it. The principal library room is 58 by 60 feet in size and is open every day and evening for the use of students. The Library now contains more than 7,000 bound volumes. It *belongs to the school* and is devoted exclusively to the use of the students. By the courtesy of the Law Library Association they have also access on Saturdays to the Bar Library at the Court House, containing a very complete collection of American, British, Scotch, Irish, and Colonial Reports and treatises.

ADMISSION.

Applicants for admission to the school will be expected to furnish satisfactory evidence of good character and of at least a good English education. The diploma of any reputable college, academy or high school will be received as evidence of the latter; or the applicant may pass an examination to test his ability to read law-books intelligently.

No fixed rule as to the age of applicants for admission is enforced, but the Faculty reserve the right to reject any student not old enough to begin the study of law with advantage; and no student will receive the degree of Bachelor of Laws before the completion of his twenty first year.

In the case of candidates for the Senior Class who have previously been members of the Junior Class, the examinations of that year will suffice, if creditably passed; and those who failed to pass, may, upon further study, apply again for examination in September, provided their record is not too unsatisfactory. The regular examinations for this purpose will begin on Tuesday, Sept. 20th, 1898, at 9 A. M., at the Law School, 1417 Lucas Place.

New applicants for admission as Seniors will be examined at the same time, and upon the following subjects:—Commercial Paper, Sales, Bailments, Agency, Torts, Criminal Law, and Common Law or Code Pleading.

Admission to the Junior Class may be held at any time during the year; to the Senior Class, after the examination in September, it will be granted only upon special examination, at a time fixed by the Dean upon application, not later than the first week of school after the Christmas holidays; and no person will be admitted a member of the Senior Class as a candidate for a degree after that time; nor at any time upon any certificate of attainments, or previous study or attendance elsewhere.

But the privileges of the school will not be confined to those who are candidates for a degree, or wish to complete the entire course. Members of the bar of any State, who wish to study particular branches of law, will be admitted at any time for that purpose; and so also will students who can take but a partial course of study; or those who take the entire course without seeking a degree. The last mentioned class will be expected to pay full tuition; to the others reduction will be made according to the circumstances of each case, but not exceeding one-half the regular tuition fee for each year. Any person coming within either of the foregoing classes, and possessing the general qualifications mentioned above, may attend the lectures of either class upon being enrolled in such class, and engaging to comply with the current regulations of the Law School. Such enrollment will entitle him to the privileges of the Library, and to attend all lectures and other exercises in both classes but not to be examined for graduation, nor to compete for a prize essay or degree.

COURSE OF STUDY.

The course for the degree of LL.B. may still, as heretofore, be completed in two annual terms, each of which (excluding the recess of about ten days at Christmas) occupies more than eight months in continuous study, beginning on the fourth Thursday of September of each year. The lectures are given at 8:45 to 9:45 A. M., and at 5 to 6 P. M., with some additional lectures to the Junior class at 4 P. M.; and Moot Court is held Fridays, at 7:30 P. M.

JUNIOR CLASS.

ELEMENTARY LAW. *Robinson and Blackstone.* Thirty-five lectures. Curtis.

CONTRACTS. *Lawson.* } Sixty-two lectures. Thayer.
COMMERCIAL PAPER. *Tiedeman.* }

TORTS. *Cooley.* } Sixty-two lectures. Bryan.
NEGLIGENCE. *Whitaker's Smith.* }

SALES. *Benjamin.* } Sixty-two lectures. Eliot.
BAILEMENTS. *Hale.* }

AGENCY. *Mechem.* Twenty lectures. Coste.

CRIMINAL LAW. Twenty lectures. Bishop. Johnson.

PLEADING. { Common Law. *McKelrey.* } Thirty lectures.
Code. Bryant. } Curtis.

DAMAGES. *Sedgwick.*

SENIOR CLASS.

REAL PROPERTY. *Tiedeman.* Fifty lectures. Rombauer.

CORPORATIONS. *Taylor.* Thirty-one lectures. Nagel.

DOMESTIC RELATIONS. *Schouler.* Thirty lectures. Curtis.

EVIDENCE. *Greenleaf.* Thirty lectures. Robert.

STATUTES OF LIMITATIONS AND FRAUDS. Ten lectures. Lionberger.

ADMINISTRATION. Woerner. Twenty lectures. Wislizenus.

CONSTITUTIONAL LAW. Black. Fifteen lectures. Judson.

JURISDICTION OF FEDERAL COURTS. Ten lectures. Thayer.

INTERNATIONAL LAW. Twenty lectures. Broadhead.

PARTNERSHIP. Parsons. Fifteen lectures. Sale.

EQUITY. Bispham. Thirty lectures. Rombauer.

HISTORY OF THE COMMON LAW. Thirty lectures. Curtis.

MOOT COURT. Once a week for both classes.

The above courses are subject to slight changes from year to year.

ADVANCED CLASS.

An Advanced Course, on the law of Extraordinary Remedies, open to all graduates of this school and to members of the bar, is conducted during the school year, by Hon. Jacob Klein, Judge of the St. Louis Circuit Court. Tuition, twenty dollars.

MOOT-COURT.

A Moot-Court is held weekly throughout seven months of the year. It is conducted, as nearly as possible, with the forms of an ordinary court of justice, and students are expected to draw pleadings in the cases assigned to them, and to conduct them through all the stages of a legal or equitable suit before trying the issues in the Moot-Court. Members of the Senior Class may be appointed to sit as Associate Justices, and required to write opinions; the Dean de-

ciding in case of a difference between them. The cases will be selected to illustrate the subjects studied by the classes and will be made so far as possible, means of instruction, not only in practice, but in the doctrines of the law. Both classes will be assigned to argue cases in these courts. The *Moot-Court Record* is a weekly published by the School, containing the Statements of Facts, Briefs and Opinions.

Opportunity will also be given for the organization of Club Courts among the students, with every facility for practice in the preparation and argument of cases, and for appeals from these to the Moot-Court, if desired.

GRADUATION.

Applicants for the degree of LL. B. must have been members of the Senior Class for the required time, and must have attended with the prescribed regularity. They will deliver to the Dean on or before the fifteenth day of May an original thesis upon some legal subject approved by the Faculty. The subject of the thesis for the year 1897 was: "The history of the Negotiability of Instruments and Securities, and the Present Condition of the Law of that subject in the United States."

They must pass the examination prescribed by the Advisory and Examining Board, and conducted by a committee of that Board. This examination will be in writing, upon questions prescribed by the Committee, and answered under the supervision of the Faculty,

without the use of books or any other assistance. It usually occupies an entire week, and is held early in June. As the degree of LL.B. conferred by this University entitles the holder to admission to the bar, it will not be granted except upon the most satisfactory evidence of actual proficiency, or to any person who will not have attained the age of twenty-one years on or before the first of October following, at the latest.

By the Revised Statutes of Missouri of 1889, § 624 (Vol. 1, p. 237), all who have completed this course and taken this degree are entitled to practice law in this State without further examination, upon taking the oath prescribed in the constitution and laws, (§ 608, and Const., Art. XIV., § 6).

The above examination is upon all the subjects of the two years' course, and is in addition to the Faculty examinations held upon the individual subjects during the two years.

FEES AND EXPENSES.

The annual fee for attendance in either class is \$80, payable in advance. There are no extra charges of any kind, and the members of either class are free to attend all lectures and exercises of both; but no student can at the same time be a regular member of more than one class. No reduction will be made from the term fee, nor any part of it returned for absence from any cause.

Good board and lodging can readily be obtained in the city at from \$4 to \$5 per week. The expense may be lessened to students rooming together. The average price paid for board with rooms during the last two or three years by students in good houses near the Law School is believed to have been not over \$20 per month, while some have obtained it as low as \$15.

Those who find it necessary to earn a part of their living in other pursuits while taking the course can do so by lengthening that course from two to three years, taking a proportionate part of the class-work (to be designated by the Faculty according to circumstances of each case) in each year. Every facility will be extended to them for such an arrangement; and the charge for tuition in such cases will only be for two years; but no other diminution of the daily requirements of attendance and study will be sanctioned, except in the case of special students not candidates for a degree.

The expense of text-books for the entire course, if purchased new and of the latest editions, is about \$75. This sum may be materially reduced by the purchase of second-hand books which may be usually had in considerable variety. All the books used in recitation may be found in the Library and can be studied there free of charge, but not taken from the room.

OPPORTUNITIES FOR STUDY IN OTHER DEPARTMENTS OF THE UNIVERSITY.

Students paying full tuition in the Law Department may take special studies in the Undergraduate Department without additional charge for tuition, provided they are able to do so without interference or neglect of any part of the Law course. To avail themselves of this privilege, they must present for each course a written introduction from the Dean of the Law Faculty and must engage to attend such course punctually, and to conform to the same regulations with other students of that course.

SCHOLARSHIPS AND PRIZES.

In pursuance of the terms of a donation of \$6,000 heretofore made to the University for the benefit of the Law School, *six free scholarships* are established in this department; also an annual prize of \$50 in money for the best thesis upon some legal topic, to be publicly awarded at Commencement. Competition for this prize is confined to the regular members of the graduating class in each year under regulations duly announced.

Applicants for *free scholarships* should apply in person or by letter to the Dean, on or before the fifteenth day of September, furnishing written testimonials of at least two responsible persons, that the pecuniary circumstances of the applicant are such as to make him deserving of this assistance, that he is of

good character and standing, and that he has received a good English education at least. Other things being equal, preference will be shown to candidates who have received a collegiate education, and especially to those who have done this wholly or partially by their own efforts. Applicants not personally known to any of the Faculty will do well to state fully and precisely their age, place of birth and residence, present occupation, education (both general and legal), and any other circumstances that may be of weight in making a selection. Such communications will be held strictly confidential.

As the applicants for *free scholarships* are usually far in excess of the number that can be given, no student will hereafter have the benefit of such scholarship for more than one year. As far as practicable, the scholarships will be equally divided between the two classes—depending upon the number and success of the candidates for scholarship in either class.

Two members of each class have an opportunity to earn their tuition and a small salary in addition, by service as librarians, and in other capacities connected with the work of the School. Application for such positions must be made in person, on or before the fifteenth day of September.

For further information, inquiries may be addressed to Wm. S. CURTIS, Law School Building, 1417 Lucas Place, St. Louis, Mo., or the Secretary of Washington University.

ST. LOUIS MEDICAL COLLEGE.

(MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1897-1898.

SESSION OPENS Thursday, September 23.

CHRISTMAS VACATION, December 24 to January 3, inclusive.

**COMMENCEMENT (Graduating Exercises), Thursday, April 28,
1898.**

**HOLIDAYS: Thursday of Fair Week, Thanksgiving Day, Wash-
ington's Birthday.**

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Instructor in Clinical Medicine.

JULES F. VALLÉ, M. D.,
Instructor in Obstetrics.

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Clinical Lecturer on Diseases of the Nose, Throat and Chest.

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*Lecturer and Demonstrator in Pathology, and Curator of the
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Assistant in Chemistry.

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Surgery.

PROFESSOR W. E. FISCHEL,

Medicine.

PROFESSOR ROBERT LUEDEKING,

Diseases of Children.

PROFESSOR JOHN GREEN,

Diseases of the Eye.

PROFESSOR J. P. BRYSON,

Diseases of Genito-Urinary Organs.

PROFESSOR FRANK R. FRY,
Diseases of the Nervous System.

PROFESSOR HENRY SCHWARZ,
Diseases of Women.

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Physical Diagnosis.

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Syphilis.

DR. ARTHUR E. EWING,
Diseases of the Eye.

DR. HENRY C. HAKTMANN,
Orthopædic Surgery.

DR. A. E. TAUSSIG,
Clinical Medicine.

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DR. H. W. BEWIG, DR. A. E. TAUSSIG,
Medical Clinic.

DR. H. C. HARTMANN, DR. H. NIETERT,
Surgical Clinic.

DR. WILLIS HALL, DR. W. C. MARDORF,
DR. C. R. DUDLEY, DR. C. C. L. F. BRUEHMANN,
Gynaecological Clinic.

DR. WM. A. SHOEMAKER, DR. JOS. W. CHARLES,
Ophthalmic Clinic.

DR. E. C. BURNETT, DR. H. McC. JOHNSON,
Clinic for Diseases of the Genito-Urinary Organs, and Syphilis.

DR. G. S. MILLER, DR. G. M. TUTTLE,
Clinic for Diseases of Children.

DR. MALCOLM BLISS, DR. H. W. SOPER,
Clinic for Diseases of the Nervous System.

DR. J. F. VALLÉ, DR. J. M. SCOTT,
DR. WILLIS HALL, DR. HENRY SCHWARZ,
DR. W. C. MARDORF, DR. F. A. GLASGOW,
Obstetrical Clinic.

DR. N. W. AMOS,
In Charge Obstetrical Out-Clinic.

DR. CHAS. J. ORR,
Clinic for Diseases of the Throat.

DR. J. P. HOEFFER,
Clinic for Diseases of the Skin.

DR. A. F. KOETTER,
Clinic for Diseases of the Ear.

ST. LOUIS MULLANPHY HOSPITAL.

PROFESSOR E. H. GREGORY,
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Surgery.

PROFESSOR J. P. BRYSON,
Genito-Urinary Surgery.

PROFESSOR FRANK A. GLASGOW,
Diseases of Women.

PROFESSOR E. M. SENSENEY,
Diseases of the Nose, Throat and Chest.

PROFESSOR J. GRINDON,
Diseases of the Skin.

DR. L. L. McCABE,
Medicine.

ST. LOUIS CITY HOSPITAL.

CLINICAL LECTURERS.

PROFESSOR H. H. MUDD,
Surgery.

PROFESSOR HARVEY G. MUDD,
Alternate.

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PROFESSOR W. E. FISCHEL,
Medicine.

DR. E. SMITH, JR.,
Alternate.

STUDENTS OF ST. LOUIS MEDICAL COLLEGE,
 SESSION OF 1897-98.

NAME.	RESIDENCE.
Abeken, Fred.....	Missouri.
Aitken, Wallace Andrew.....	Kansas.
Ashcar, Charles Joseph	Missouri.
Bland, Warren Wilson, B. S.....	Missouri.
Bleuler, Ernest Alfred	Illinois.
Bollinger, Edward	Illinois.
Breath, Walter Parry	Texas.
Bunyan, Maurice Vincent.....	Illinois.
Burns, Robert, Jr.....	Missouri.
Caldwell, Robert Lee, B. S.....	Missouri.
Churchill Roy Harry	Illinois.
Corbin, Brice X.....	Nebraska.
Corner, Albert Watson.....	Missouri.
Davis, Holland Acher.....	Missouri.
Davis, Homer Willard	Illinois.
Dillon, William.....	Missouri.
Drake, Claire F.....	Missouri.
Dudley, Carl Edward.....	Indiana.
Eberlein, Edwin William, Ph. G.....	Missouri.
Elsey, James Ralph.....	Illinois.
Farmer, Percy Joseph	Missouri.
Farrell, John J.....	Missouri.
Ferrel, Harry Eugene.....	Missouri.
Fischer, Oscar Herman	Missouri.
Fleming, John Bartley.....	Missouri.
Forder, Carver William.....	Missouri.
Frazer, Samuel Horace.....	Missouri.
Fruth, Otto Jacob, D. M. D.....	Missouri.
Gee, Hail L.....	Illinois.

NAME.	RESIDENCE.
Gehrung, Julien August, A. B.....	Missouri.
Genung, Lewell T.....	New York.
Goodrich, Charles Francis, Jr.....	Missouri.
Gowans, Charles.....	Illinois.
Gradwohl, Rutherford Birchard Hayes.....	Missouri.
Grebe, William, M. D.....	Illinois.
Green, John, Jr., A. B.....	Missouri.
Hardin, William Rufus.....	Missouri.
Hardy, William Frederick.....	Missouri.
Harris, Thomas Eugene.....	Missouri.
Harviell, Charles Poplin.....	Missouri.
Hays, William Preston Harrison.....	Missouri.
Hertel, Henry George.....	Illinois.
Hess, William Lionell.....	California.
Hofmann, Ottokar, Jr.....	Kansas.
Hogg, Garrett, B. S.....	Missouri.
Holke, Theophil James	Illinois.
Humphrey, Joseph Harrison.....	Missouri.
Kane, Robert Emmet, A. B.....	Missouri.
Keehn, Leonard.....	Missouri.
Kirchner, Walter Charles George, A. B.....	Missouri.
Krenning, William George.....	Missouri.
Kuhls, Frank George	Illinois.
Larwill, Theodore Wynne.....	Tennessee.
Lawless, Charles Lester.....	Missouri.
Lionberger, John Robert.....	Missouri.
Loggins, Lee Alston.....	Texas.
McKenzie, Robert Ewing.....	Illinois.
Matlack, James Allan.....	Illinois.
Max, Christian Oscar	New York.
Meirink, Bernard John, A. B.....	Illinois.
Montgomery, Calvin Carlin.....	Illinois.
Moore, Henry Morgan, A. B.....	Missouri.
Murphy, Bradford, B. A.....	Missouri.
Murrell, Charles Percival.....	Missouri.

NAME.	RESIDENCE.
Niebrugge, Henry John.....	Missouri.
Paine, George Franklin.....	Missouri.
Park, Percival Albert.....	Illinois.
Pettit, Joseph Asahel	Oregon.
Pitman, John Brand.....	Missouri.
Pollock, Arthur Robert.....	Dakota.
Powell, Ernest Willard	Nebraska.
Printz, Felix Charles Waldemar.....	Missouri.
Reiser, Georg Ferdinand.....	Germany.
Richards, Emmet Earl.....	Missouri.
Romeiser, Theo. Hilgard.....	Illinois.
Rush, William Harvey, S. B , A. B. and A. M...	Missouri.
Sacry, John Allen.....	California.
Smith, Ulysses Scott	Missouri.
Smith, Arthur Joseph.....	Missouri.
Spitze, Edward C.....	Illinois.
Stephens, Philip Howard.....	Missouri.
Stewart, Samuel Smith, A. B.....	Missouri.
Stouffer, Robert Walker.....	Missouri.
Studer, Joseph Valentine.....	Illinois.
Taphorn, Henry.....	Illinois.
Taussig, Frederick Joseph, A. B.....	Missouri.
Thebus, Robert Philip.....	Illinois.
Thierry, Charles William, A. M.....	Missouri.
Townsend, Walter Boyd	Missouri.
Vogelsang, Edward Jacob.....	Missouri.
Wilkinson, George Eldorado	Missouri.
Woldridge, Homer Lee.....	Missouri.

The St. Louis Medical College was founded in 1842 as the Medical Department of St. Louis University. Incorporated by special charter in 1855, its annual courses of instruction were continued by the same Faculty, which, under an ordinance enacted April 14, 1891, was created the Medical Faculty of Washington University. In October, 1892, the College opened, in its new building, its fifty-first consecutive annual session.

The graded course of study established by the St. Louis Medical College in 1880 has been elaborated and extended from time to time, as riper experience has dictated, and always in the direction of higher standards and broader teaching. Another step in advance is now taken by requiring four full years of attendance at College from all future matriculants before they can become candidates for graduation. It will be seen that this does not affect students who entered upon a three years' course in 1895 or 1896.

The annual sessions are of seven calendar months, and ample opportunities for clinical study are afforded throughout the entire year. To students fitted by adequate preliminary training to profit by a comprehensive and thorough course of medical study this College offers exceptional advantages.

A distinctive feature of the St. Louis Medical College is the requirement of and full provision for extended laboratory work, by every student, in all the fundamental subjects of medical study. The extent and scope of the required practical work in Anatomy

and in Chemistry have been greatly enlarged, and full laboratory courses are given in Histology, in Medical Chemistry, in Pathological Anatomy and Histology, and in Bacteriology. In extent and completeness of laboratory equipment, the St. Louis Medical College ranks with the best and most progressive educational institutions of this country; in the comprehensiveness and thoroughness of its laboratory instruction it is now, as it has been for many years, greatly in advance of other medical schools in St. Louis.

The methods of clinical teaching followed in the St. Louis Medical College are characterized by the same attention to individual training as in its laboratory instruction. Thorough practical courses in the technique of Surgical Dressings and Antisepsis and of Physical Diagnosis are given in the Junior Year, and systematic use is made of all the general and special clinics of the College in the further study of diagnostic methods as illustrated and tested in the personal examination of patients.

The O'Fallon Dispensary is a special Clinical Department of the College with general Medical and Surgical Clinics, and special Clinics for Diseases of Children, for Diseases of the Eye, for Genito-Urinary Surgery, for Diseases of the Nervous System, for Diseases of Women, for Diseases of the Skin, for Diseases of the Ear, for Orthopædic Surgery, for Syphilis, for Diseases of the Nose, Throat and Chest, etc. All these various Clinics are conducted in the College building, where large and well arranged reception and

Clinic rooms have been provided on the first floor, which, together with a spacious and admirably constructed operating theatre with its waiting rooms and annexes, amply meet all requirements of space and convenience.

An Obstetrical Out-clinic attached to the Dispensary affords the Senior student special opportunities for practical work in this important branch of medicine.

The extensive general and special Clinics of the St. Louis Mullanphy Hospital are conducted by members of the Faculty and physicians connected with the St. Louis Medical College, and are devoted wholly to the instruction of its students. At the City Hospital, the Female Hospital and the City Insane Asylum and Poor House, the College shares on equal terms with others in the privileges of visiting and of clinical instruction. Weekly Surgical and Medical Clinics are held at the City Hospital by Professors H. H. Mudd and W. E. Fischel, and are attended by the second and third year Classes.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the College will be received upon the following conditions:—

1. Satisfactory certificates of good moral standing.
2. (a) The presentation of a College degree in Letters or Science, (b) of a diploma or certificate of graduation from an Academy or high school, or (c) of a certificate showing that the candidate has passed

the entrance examination to an accredited College or scientific school, or (*d*) the special preliminary examination prescribed by State regulations for admission to the study of medicine, or (*e*) passing an examination in the following branches: English grammar and composition, arithmetic, algebra as far as quadratics, elementary physics, United States history, geography, and Latin equivalent to one year in a high school."*

These examinations will be conducted by examiners, appointed by the Chancellor of Washington University. †

Inasmuch as the requirements preliminary to the study of medicine and to the registration of physicians vary somewhat in the different States, it is particularly enjoined upon all students to conform, in all respects, to the special regulations governing admission to medical practice in the State in which they intend to reside.

ADMISSION TO ADVANCED STANDING.

Students who have attended one course of lectures in an accredited regular School of Medicine, or who are graduates of an approved School of Biology, may enter upon the work of the Second Year upon presentation of a satisfactory grade from their former school in the studies of the Junior Year, or upon examina-

* Candidates who fail in the examination in Latin will be given an opportunity to make up the deficiency before the beginning of their second year.

† Regular entrance examinations will be held on September 21st and 22nd, 1897. Candidates may, however, arrange for special examination during the summer by applying to the Dean.

tion in these studies.* Students who have attended two courses of lectures in an accredited regular School of Medicine may enter upon the work of the Third year upon presentation of a satisfactory grade from their former school in the studies of the Junior and Second years, or upon examination in these studies.

COURSE OF STUDY.

The studies are systematically graded throughout the entire course, which henceforth covers four years' attendance at College. Examinations are held at the close of the first and second semesters of the Junior, Second and Third years, and a pass-grade in the work of each of these years is required as a condition of advancement to regular standing in the studies of the next year. On his admission to the College each student is furnished with a matriculation sheet on which his standing is certified by the Dean, at the beginning of each of the four years of the course; at the close of each semester his attendance on the prescribed courses of study is attested, on the same sheet, by the signatures of the several instructors.

The work is so arranged as to secure the most profitable distribution of studies. The Junior Year is devoted largely to laboratory exercises and to training in diagnostic methods; demonstrative and didactic teaching being supplemented, throughout, by prac-

* Students from other colleges who fail to pass in some of the Junior examinations, may be received into the Second Year class *on condition* that they pass these examinations at the end of the Second Year.

tical courses, in which prescribed individual work is done by every student. In the Second Year attention is particularly given to theoretical and preparatory subjects, anatomy, physiology, pathology, bacteriology (chiefly laboratory work), therapeutics and medical diagnosis. Clinical work is taken up only in its second half. In the Third Year the general principles of medicine and surgery are studied in clinics, conferences and lectures, and certain specialties are now first considered. These practical studies are extended into the Fourth Year, which is largely devoted to the special branches of medicine and surgery, in all of which clinical instruction is provided. Hygiene and Forensic medicine are included in the work of the Fourth Year.

SCHEDULE OF WORK.

The curriculum, covering Four Years, is divided into eight semesters, the first semester of each year ending at Christmas, the second semester beginning with the New Year. Students are required to pass in the subjects upon which examinations are held in each year before entering on the work of the next.

JUNIOR YEAR.

FIRST TERM. (SEMESTER I.)

General Elementary Chemistry, Lectures and Demonstrations, 3 hours a week.*

Laboratory work in General Chemistry, 4 h.

Anatomy: Osteology and Syndesmology, Lectures and Demonstrations, 8 h.+

Descriptive Anatomy (other than Osteology), Lectures and Demonstrations, 3 h.

Practical Anatomy, Laboratory work, 8 h.

Laboratory work in Histology, 6 h.

Materia Medica, Lectures and Demonstrations, 2 h.*

* Examination in this branch is held about the end of the Semester.

+ Final Examination at the end of the Semester.

JUNIOR YEAR.

SECOND TERM. (SEMESTER II.)

Chemistry: Laboratory work in Qualitative Analysis, 7 h.[†]
Descriptive Anatomy, Lectures and Demonstrations, 8 h.*
Practical Anatomy, Laboratory work, 8 h.
Histology, Laboratory work, 6 h.[†]
Physiology, Lectures, Demonstrations and Conferences, 4 h.
Pharmacy, Laboratory work, 3 h.*

SECOND YEAR.

FIRST TERM. (SEMESTER III.)

Descriptive Anatomy, Lectures and Demonstrations, 3 h.
Regional Anatomy, Lectures and Demonstrations, 2 h.[†]
Practical Anatomy, Laboratory work, 8 h.
Physiology, Lectures, Demonstrations and Conferences, 4 h.[†]
Physiology, Laboratory work, from 2 to 4 h.
Pathology, Pathological Anatomy and Histology, Lectures and Demonstrations, 2 h.
Pathological Histology, Laboratory work, 4 h.
Therapeutics, Lectures and Demonstrations, 8 h.
Clinical Chemistry and Chemical Diagnosis, Laboratory work, 4 h.[†]

SECOND YEAR.

SECOND TERM. (SEMESTER IV.)

Descriptive Anatomy, Lectures and Demonstrations, 3 h.[†]
Practical Anatomy, Laboratory work, 8 h.
Bacteriology, Laboratory work, 4 h.[†]
Pathology, Lectures and Demonstrations, 2 h.[†]
Pathological Histology, Laboratory work, 4 h.
Therapeutics, Lectures and Demonstrations, 1 h.[†]
Medicine: Practical Exercises in Normal Percussion and Auscultation, 2 h.
General Medical Clinic, 1 h.
Surgery: Practical Exercises in Surgical Dressings, 1 h.
General Surgical Clinic, 1 h.

THIRD YEAR.

FIRST TERM. (SEMESTER V.)

Medicine: Principles of Medicine, Lectures, 1 h.
Physical Diagnosis, Practical Exercises, 3 h.
Practice of Medicine (first half), Lectures and Demonstrations, 8 h.
General Medical Clinics, 2 h.
Diseases of Children, Lectures and Demonstrations, 2 h
Clinic for Diseases of Children, 1 h.
Clinics for Diseases of the Nose, Throat and Chest, 2 h.

* Examination in this branch is held about the end of the Semester.

† Final Examination at the end of the Semester.

Surgery: Principles and Practice of Surgery, Lectures and Demonstrations, 3 h.

General Surgical Clinics, 5 h.

Clinic for Orthopædic Surgery, 1 h.

Obstetrics: Lectures, Demonstrations and Exercises on the Manikin, 3 h.

Clinics for Diseases of the Skin, 3 h.

Clinic for Diseases of the Ear, 1 h.

THIRD YEAR.

SECOND TERM. (SEMESTER VI.)

Medicine: Principles of Medicine, Lectures, 1 h. †

Practice of Medicine (first half), Lectures and Demonstrations, 3 h.*

General Medical Clinics, 2 h.

Clinical Conference, 1 h.

Diseases of Children, Lectures and Demonstrations, 2 h.

Clinic for Diseases of Children, 1 h.

Diseases of the Nervous System, Lectures and Demonstrations, 2 h.

Clinic for Diseases of the Nervous System, 1 h.

Clinics for Diseases of the Nose, Throat and Chest, 2 h.

Surgery: Principles and Practice of Surgery, Lectures and Demonstrations, 3 h. †

General Surgical Clinics, 5 h.

Clinic for Orthopædic Surgery, 1 h. †

Obstetrics: Lectures, Demonstrations and Exercises. 3 h. †

Gynaecological Clinics, 2 h.

Clinic for Diseases of the Genito-Urinary Organs, 2 h.

Clinics for Diseases of the Skin, 3 h.

Ophthalmology, Lectures and Demonstrations, 1 h.

Clinic for Diseases of the Ear, 1 h. †

SENIOR YEAR.

FIRST TERM. (SEMESTER VII.)

Medicine: Practice of Medicine (second half), Lectures and Demonstrations, 3 h.

General Medical Clinics, 2 h.

Clinic for Diseases of Children, 1 h.

Clinic for Diseases of the Nervous System, 1 h.

Clinic for Mental Diseases, 2 h.

Clinics for Diseases of the Nose, Throat and Chest, 2 h.

* Examination in this branch is held about the end of the Semester.

† Final Examination at the end of the Semester.

Surgery: General Surgical Clinics, 5 h.†

Obstetrical Out-Clinic, by appointment.‡

Gynaecology, Lectures and Demonstrations, 1 h.

Gynaecological Clinics, 2 h.

Diseases of the Genito-Urinary Organs, Lectures and Demonstrations, 2 h.

Clinics for Diseases of the Genito-Urinary Organs, 3 h.

Clinic for Syphilitic Diseases, 1 h.

Clinics for Diseases of the Skin, 3 h.†

Ophthalmology, Lectures and Demonstrations, 1 h.

Ophthalmic Clinic, 1 h.

Hygiene, Lectures and Demonstrations, 2 h.†

SENIOR YEAR.

SECOND TERM. (SEMESTER VIII.)

Medicine: Practice of Medicine (second half), Lectures and Demonstrations, 3 h.†

General Medical Clinics, 2 h.†

Clinical Conference, 1 h.

Clinic for Diseases of Children, 1 h.†

Clinic for Diseases of the Nervous System, 1 h.†

Clinic for Diseases of the Nose, Throat and Chest, 1 h.

Surgery: Lectures and Demonstrations on Fractures and Dislocations, 2 h.†‡

General Surgical Clinics, 3 h.†

Obstetrical Out-Clinic, by appointment.‡

Gynaecology, Lectures and Demonstrations, 2 h.†

Gynaecological Clinic, 1 h.

Clinic for Diseases of the Genito-Urinary Organs, 1 h.†

Lectures on Syphilis, 1 h.

Clinic for Syphilitic Diseases, 1 h.

Ophthalmic Clinic, 1 h.†

Forensic Medicine and Toxicology, Lectures and Demonstrations, 2 h.†

† Final Examination at the end of the Semester.

‡ Opportunity is given to senior senior students to repeat the Course of Lectures on the Principles and Practice of Surgery, and on Obstetrics.

NOTE.—The schedule of work for students of the Three Years' Course is the same as that of last year and will be found in the printed PROGRAMME furnished at the beginning of the term.

POST-GRADUATE COURSE.

Physicians, graduates of an accredited regular school of medicine, are admitted to any of the courses of instruction given in the College, subject to such restrictions as may grow out of the assignment of hours in the programmes of work laid out for the several classes, and to the single further restriction that, in the case of those desirous of taking advanced laboratory work, such proficiency in elementary work as may be necessary for its successful prosecution will be required. A certificate of actual attendance will be given upon request.

REQUIREMENTS FOR GRADUATION.

- (1) The candidate must be twenty-one years of age.
- (2) He must be of good moral character (which includes unexceptionable conduct while at College).
- (3) He must have attended not less than four regular annual courses of medical instruction, the last of which must have been in this College.*
- (4) He must, by the first of April, have notified the Dean, in writing, of his intention to present himself for examination.
- (5) He must have discharged all indebtedness to the College.
- (6) He must have passed a satisfactory examination in all the required subjects of the curriculum.

DEGREES.

The degree of Doctor of Medicine, *cum laude*, will be conferred upon students who, having passed in all of the required subjects of the four years, have attained an average of seventy-five per cent. In case of an exceptionally high grade being attained, the Faculty may, by vote, award the degree *magna cum laude* or *summa cum laude*.

* But students having *already* attended part of a Three Years' Course may present themselves for graduation upon the completion of that Course in 1898 or 1899.

Applicants who fall below the required percentage in the examination for these higher degrees, but whose average justifies their graduation, will receive the degree of Doctor of Medicine.

The fact of attendance during four full years will be especially stated in diplomas awarded to students completing the course.

TEXT-BOOKS.

The names of works recommended as Text-Books are printed in *italics*; those recommended for reference, in common type,—latest editions being understood.

CHEMISTRY.

Long's Experimental and Analytical Chemistry. *Sanger's Laboratory notes in General Chemistry and Qualitative Analysis.* *Simon's Manual of Chemistry.* *Newth's Text-Book of Inorganic Chemistry.*

ANATOMY.

Morris's Human Anatomy, or Gray's Anatomy. *Holden's Guide to Dissections.* *Wilder's Anatomical Technology.* *Treves's Surgical Applied Anatomy.* *Quain's Anatomy.* *Holden's Osteology.*

HISTOLOGY.

Piersol. *Stohr.*

PHYSIOLOGY.

Foster. *American Text-Book of Physiology.* *Stewart's Manual of Physiology.*

MATERIA MEDICA AND THERAPEUTICS.

H. C. Wood's Therapeutics. *Hare's Text-Book of Practical Therapeutics.* *Thornton's Dose-book and Manual of Prescription Writing.* *United States Dispensatory.*

PATHOLOGICAL ANATOMY AND HISTOLOGY.

Ziegler. *Woodhead.* *Delafield & Prudden.*

BACTERIOLOGY.

Sternberg's Manual for Students. *McFarland's Text-book of Pathogenic Bacteria.*

MEDICINE.

Osler, or Wood and Fitz, or Tyson, Practice of Medicine, *Musser, Physical Diagnosis.* *Simon, Clinical Diagnosis.* *Vierordt or Da Costa, Medical Diagnosis.*

DISEASES OF THE NERVOUS SYSTEM.

C. L. Dana. *L. C. Gray.*

DISEASES OF CHILDREN.

Rotch, Pediatrics. *Holt, Diseases of Infancy and Childhood.* *Smith, Diseases of Children.* *American Text-book of Diseases of Children.*

SURGERY.

Park's Treatise on Surgery by American Authors. *American Text-book of Surgery.* *Hamilton on Fractures and Dislocations.* *Stimson's Operative Surgery.* *Warren's Surgical Pathology and Therapeutics.*

OBSTETRICS.

Playfair. *Purvin.* *Davis.* *Dorl and Botslinitere on Obstetrical Accidents, Emergencies and Operations.*

GYNÆCOLOGY.

American Text-book of Gynæcology. Clinical Gynæcology, Keating & Coe. Goodell, Lessons in Gynæcology. Garrigues, Diseases of Women. American System of Obstetrics and Gynæcology. Thomas & Mundé, Diseases of Women. Byford, Manual of Gynæcology.

GENITO-URINARY DISEASES.

Morrow's System, Vol. 1. Taylor. White & Martin.

SYPHILIS.

Cornil. (American Edition.)

OPHTHALMOLOGY.

Nettleship. Norris and Oliver. Noyes. Fuchs.

OTOTOLOGY.

Buck. Field. Burnett. Politzer.

DERMATOLOGY.

Crocker. Jackson.

FORENSIC MEDICINE.

Withaus and Becker, Medical Jurisprudence, Forensic Medicine and Toxicology.

ORTHOPÆDIC SURGERY.

Young, *Orthopaedic Surgery* Walsham and Hughes, Deformities of the Human Foot. Bradford and Lovett, Orthopaedic Surgery.

FEES.

(PAYABLE IN SEPTEMBER OF EACH YEAR.)

Matriculation Fee (payable but once).....\$ 5 00
Fees for each year..... 100 00

No charge is made for laboratory supplies or use of anatomical material.

No charge is made for demonstrators' or hospital tickets, or for graduation.

The matriculation fee (\$5.00), and the fee for the year (\$100.00), are payable to the Dean at the time of matriculation, at the beginning of the college year, in September.

Students are required to provide themselves with such articles of chemical apparatus as test-tubes, watch-glasses, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

All indebtedness to the College must be discharged before entering on the final examination for graduation.

Note—Graduates of the St. Louis Medical College have perpetual free admission, but will be charged a laboratory fee of \$20.00.

Graduates, under three years, of other medical schools, will be charged the matriculation fee and twenty dollars, for attendance during a college year or part of a year; they will also be charged a laboratory fee of \$20.00.

Graduates of other medical schools, of three or more years' standing, will be charged the matriculation fee and a laboratory fee of \$20.00.

Graduates in medicine who may be admitted to the College as candidates for a degree will be charged the matriculation fee and the fee for one year.

Special Courses of Instruction may be arranged by applying to the Dean.

SCHOLARSHIPS.

1. The HENRY HITCHCOCK SCHOLARSHIP is held by Hon. Henry Hitchcock, and entitles the beneficiary to one year's free tuition.
2. The GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Diseases of Children, entitles the holder to one year's free tuition.

PRIZES.

Two "George F. Gill prizes" are offered to the students of the St. Louis Medical College, viz.:

1. One prize of \$50 to be awarded at the end of the Junior year to the member of the class who shall have done the best work in *Anatomy*.
2. One prize of \$50 to be awarded to a member of the graduating class, of high general standing, who shall have done specially good work in the department of *Diseases of Children*.

The George F. Gill prizes were awarded to Dr. Bernard Samuel Simpson, a member of the Graduating Class, for meritorious work in the study of Diseases of Children; and to Mr. Homer M. Davis, a member of the Junior Class, for the best work in Anatomy.

HOSPITAL APPOINTMENTS.

Positions as internes at the St. Louis City and Female Hospitals are awarded each year, after competitive examination conducted by the Board of Health.

The successful candidates from the St. Louis Medical College this year were:—Dr. William Franklin Ball; Dr. Donald Herbert Currie; Dr. Theodore Greiner; Dr. Burt Loraine Scott; Dr. Nathaniel Meacon Semple; Dr. Bernard Samuel Simpson; Dr. Washington West, Jr.; Dr. Carl Zimmermann; Dr. Ernst Zimmermann.

Physicians who wish to receive the Annual Announcement of the St. Louis Medical College regularly, are requested to send their address to the Secretary of the Faculty, Dr. John B. Shapleigh, No. 2608 Locust Street; notice of change of residence is also desired. All further information may be obtained by addressing or calling upon the Dean.

DR. HENRY H. MUDD,
No. 2604 Locust Street.

MISSOURI DENTAL COLLEGE.

(DENTAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

The THIRTY-SECOND ANNUAL SESSION begins on Thursday, September 23rd, 1897, and ends on Thursday, April 28th, 1898. Preliminary Examinations will be held on Wednesday, September 22nd.

CHRISTMAS RECESS: Friday December 24th, 1897, to Monday, January 2nd, 1898.

COMMENCEMENT: Thursday, April 28th, 1898.

HOLIDAYS: Thursday of Fair Week, Thanksgiving Day, Washington's Birthday.

The College building is situated at 1814 Lucas Place. Dentists who wish to receive the Annual Announcement, are requested to notify the Secretary of the Faculty, DR. A. H. FULLER, Columbia Building, southeast corner Eighth and Locust streets.

Any further information may be obtained by addressing or calling upon the Dean,

**HENRY H. MUDD, M. D.,
2604 Locust Street.**

MISSOURI DENTAL COLLEGE.

BOARD OF OVERSEERS.

JAMES E. YEATMAN, President.

HENRY HITCHCOCK.

CARLOS S. GREELEY.

HENRY H. MUDD, M. D., Treasurer.

ALBERT H. FULLER, D.D.S., Secretary.

HENRY J. McKELLOPS, D.D.S.

JAMES B. NEWBY, D.D.S.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor of the University.

ELISHA H. GREGORY, M. D., LL.D.,
Professor of the Principles and Practice of Surgery.

ALBERT H. FULLER, M. D., D.D.S., Secretary,
Professor of Operative Dentistry.

HENRY H. MUDD., M. D., Dean,
Professor of Clinical Surgery.

ORION W. BEDELL, M. D., D.M.D.,
Professor of Mechanical Dentistry,
Instructor in Dental Embryology and Pathology.

PAUL Y. TUPPER, M. D.,
Professor of Descriptive Anatomy.

EDGAR M. SENSENEY, M. D.,
Professor of Therapeutics and Materia Medica.

CHARLES R. SANGER, A. M., Ph. D.,
Professor of Chemistry.

SIDNEY P. BUDGETT, M. D.,
Professor of Physiology and Histology.

ROBERT R. VAUGHAN, D.D.S.,
Assistant Professor of Mechanical Dentistry and
Superintendent of Infirmary.

LECTURERS.

**JOHN G. HARPER, D.D.S.
JOSEPH MASERANG, JR., Ph. G.**

DEMONSTRATORS.

Of Anatomy.
**E. H. GREGORY, JR., M.D.
V. P. BLAIR, M.D.
H. L. NIETERT, M.D.**

Of Dental Technics.
CHARLES W. RICHARDSON, D.D.S.

CLINICAL INSTRUCTORS.

**GEORGE A. BOWMAN, D.D.S.
JAMES W. WICK, D.D.S.
JAMES B. NEWBY, D.D.S.
HENRY M. BAIRD, D.D.S.
THEODORE L. PEPPERLING, D.D.S.
ABEL J. PROSSER, D.D.S.
PETER H. EISLOEFEL, D.D.S.
JOHN G. HARPER, D.D.S.
ORMOND H. MANHARD, D.D.S.
CARL E. SCHUMACHER, D.D.S.
ALFRED D. FULLER, M.D., D.D.S.
ROBERT R. VAUGHAN, D.D.S.
HARRY DOENCH, D.M.D.
LOUIS W. BARTEL, D.M.D.**

**STUDENTS OF MISSOURI DENTAL COLLEGE,
SESSION OF 1897-98.**

NAME.	ADDRESS.
Alexander, Albert Clyde.....	Missouri.
Alley, Elwood.....	Missouri.
Alloway, Henry Clinton.....	Missouri.
Arthur, Willis Bertram, M. D.....	Missouri.
Barry, Burt.....	Missouri.
Bass, John Patton.....	Missouri.
Bay, Roy.....	Missouri.
Bedell, Charles Thomson.....	Missouri.
Bellchamber, Charles Edward.....	Illinois.
Bey, John Emil Charles.....	Missouri.
Black, Robert Elliott.....	Illinois.
Boon, Harry Webster.....	Kansas.
Boothe, John Charles.....	Illinois.
Brandenberger, Herman.....	Missouri.
Brite, Ewing Morris.....	Missouri.
Brooking, David Long.....	Missouri.
Burgard, Louis Charles.....	Illinois.
Busch, Walter August.....	Missouri.
Byrne, Elmer.....	Illinois.
Colby, Otis Clinton.....	Illinois.
Collier, Jessie Claude.....	Missouri.
Corder, George Washington.....	Missouri.
Crews, Charles Carroll	Virginia.
Davis, James Ramsey.....	Missouri.
DeGuire, Murton Elbert.....	Oregon.
Dunn, Freeland Joseph.....	Missouri.
Ellis, Arthur Maud.....	Missouri.
Ellis, Roy Herndon.....	Missouri.
Farrow, Claudious Golder.....	Arkansas.
Fellner, Alfred	Austria.

NAME.	ADDRESS.
Ferguson, Stonewall Jackson.....	Missouri.
Ferrell, Houston Everett.....	Missouri.
Foster, Douglas Eads.....	Missouri.
Frank, George Henry.....	Missouri.
Gardiner, William Wetzel.....	Missouri.
Garrett, Walter B.....	Missouri.
Hale, Robert Lacy.....	Missouri.
Hammond, Harry Barnum.....	Missouri.
Hartman, John Michael.....	Ohio.
Heitzig, Albert William.....	Missouri.
Henry, Leonard Quirin	Missouri.
Hirshi, Robert O.....	Missouri.
Hobson, Stephen Franklin.....	Missouri.
Hoffman, Henry Robert	Missouri.
Horton, Edward Linn.....	Missouri.
Houston, Esco Tarleton.....	Missouri.
Hudson, Quillen Otis.....	Missouri.
Hugo, Charles William.....	Kansas.
Hull, James William.....	Missouri.
Isle, Mauzey Whitfield.....	Missouri.
Johannesen, Clarence.....	Pennsylvania.
Jones, Louis Dibrell	Missouri.
Jones, George Chapman, Jr.....	Missouri.
Kehde, Howard Augustus.....	Missouri.
Keller, Harry	Missouri.
Kelsey, Daniel Michael.....	California.
Kendall, Porter.....	Missouri.
Kimbrough, Henry Shepperd	Missouri.
Kraft, Louis Henry.....	Illinois.
Lansberg, Herman Max.....	Missouri.
Lehnhard, Philip Jay.....	Missouri.
Leibrock, John Philip.....	Illinois.
Liebrecht, Charles Felix.....	Texas.
Lischer, Benno Edwin.....	Illinois.
Loesch, George Washington.....	Missouri.

NAME.	ADDRESS.
Long, Joseph Elmer.....	Illinois.
McCalman, Carl Spencer.....	Iowa.
McGuire, Eugene.....	Illinois.
Mandel, Leo.....	Missouri.
Matkin, Elmer Hicks.....	Missouri.
Matlack, James Allan.....	Illinois.
McFord, William Galispie.....	Missouri.
Meriwether, Charles Lewis.....	Missouri.
Mitchell, Charles Brown.....	Missouri.
Mockbee, Charles Robertson.....	Missouri.
Moore, Edwin.....	Missouri.
Morrow, Edwin Day.....	Missouri.
Morrow, David Erwin.....	Missouri.
Mueller, Henry Charles.....	Illinois.
Niemeyer, Ernest Louis.....	Illinois.
Nifong, Sylvester Cook.....	Missouri.
Obrock, Herman Charles.....	Missouri.
Owens, Benjamin Thornton.....	Texas.
Pearce, Gilbert Dorset.....	Missouri.
Pemberton, Earl Powell.....	Missouri.
Pettibone, Jacob Block.....	Missouri.
Pippin, Bland Nixon.....	Indiana.
Popp, Louis Fritz.....	Missouri.
Rapp, Fred. Bunnelle.....	Missouri.
Reisse, Edward Charles.....	Missouri.
Rhodes, Noble Gregory.....	Missouri.
Rinehart, John Jefferson.....	Illinois.
Robinson, Lewie Peter.....	Illinois.
Sandel, Huntington.....	Louisiana.
Sappington, Clarence Leffingwell.....	Missouri.
Schaer, Charles.....	Missouri.
Scherzinger, Alex.....	Missouri.
Schlagenhauf, Edward.....	Illinois.
Schwaner, Rolla Albert.....	Iowa.
Schwarz, Elmer Henry.....	Illinois.

NAME.	ADDRESS.
Scott, Ira Dudley.....	Missouri.
Smith, Handy Linn.....	Missouri.
Smith, George Walter.....	Illinois.
Smith, James D.....	Missouri.
Spann, Herman Theodor.....	Missouri.
Staudinger, Paul.....	Missouri.
Steinmesch, Henry Garrette	Missouri.
Stockhoff, Arthur Martin.....	Missouri.
Stone, Frank Powell.....	Missouri.
Stocker, Don.....	Missouri.
Straube, Clarel Shipherd.....	Missouri.
Trauernicht, Fred. William.....	Missouri.
Temm, William Branter.....	Missouri.
Walker, Edward Wilber.....	Missouri.
Weber, Wilson Rudolph.....	Texas.
Wild, John.....	Missouri.
Wild, Rudolph.....	Missouri.
Willett, Raymond Clair.....	Iowa.
Wiseman, Fieldon William.....	Missouri.
Wolf, Albert William.....	Illinois.
Wood, Harry Thomas.....	Missouri.
Wurtz, Eugene David	Illinois.
Wyckoff, Charles.....	Illinois.
Wyckoff, Eugene F.....	Iowa.

REQUIREMENTS FOR ADMISSION.

Every candidate for admission must present to the Faculty satisfactory evidence of a good moral character. He must have a good English education, as evidence of which a diploma from a reputable literary institution, a teacher's certificate or other evidence of qualification will be accepted, in conformity with the requirements of the National Association of Dental College Faculties. If he have neither of these, he may be admitted to the College upon passing a written examination before the Examining Committee of the Faculty on the following subjects: Orthography, English Grammar, Arithmetic, Geography, American History and Elementary Physics. He will also be required to write a Composition of a given number of words, on some common subject.

Those expecting to take this examination should carefully prepare themselves prior to coming before the committee. This may be done by home study or attendance at night schools.

Students, who have attended courses of lectures in other accredited schools of Dentistry, will be received into the advanced grades of Middle and Senior classes only upon presentation of certificates of having passed examinations in the studies of the Junior and Middle grades respectively.

Such certificates are recognized by any College of the Association of Dental Faculties, to whom the holder

may apply, as evidence that the stated number of terms have been spent in the institutions by which the certificates are issued. They will be granted to any student at his request after the satisfactory completion of a given course of study.

Graduates of reputable medical schools may matriculate as Second Year students without examination.

As the course of instruction has been divided in such a way as to cover the entire session, and is a graded course, it is considered very important that students shall be in attendance the first day of the term.

REGISTRATION.

Students of all classes are required to register each year at the beginning of the session.

No student of any class will be registered after the 28th day of the session.

LECTURES.

The course of lectures included in the curriculum of this College has been so classified and arranged as to give the student a good opportunity for gaining a thorough knowledge of the branches taught.

A portion of the lectures to dental students is given in connection with the medical classes in the St. Louis Medical College, furnishing a rare opportunity for the dental student to acquire the comprehensive knowledge of the science of medicine, so indispensable to the successful practice of any specialty.

The Museum, Anatomical Rooms and Chemical Laboratory of the St. Louis Medical College are as free to the dental as to the medical student.

In addition to the regular course of instruction, there will be clinical lectures and demonstrations by a number of dentists, eminent in the profession as successful practitioners.

INFIRMARY.

The College Infirmary, under the direction of the superintendent, Robert R. Vaughan, D. D. S., and the demonstrators, will be open daily, furnishing ample opportunity for instruction in practical dentistry. The Surgical Clinics at the City, Sisters', St. Luke's and other hospitals, and at the College Dispensary, afford opportunities for instruction that cannot be found except in large cities.

The amount of clinical material furnished the student is shown by the record of the Infirmary work from May 12th, 1897 to January 1st, 1898.

Gold Filling.....	1057	Bridges	28
Amalgam Filling	1181	Full Plates (Rubber)	61
Other Filling	185	Part Plates (Rubber).....	57
Gold Crowns.....	79	Metal Plates.....	6
Richmond Crowns.....	27	Extraction	1635

The work in Junior Laboratory shows.

Full Rubber Plates.....	84	Brass Crowns.....	160
Part Rubber Plates.....	84	Bridges	40
Metal Plates.....	91		

DENTAL OPERATING ROOM.

This room, 84x26 feet, having one side of continuous windows reaching from floor to ceiling, is fitted with Morrison chairs, brackets, spittoons, and wall cabinets to hold student's entire operating outfit and makes an ideal place for the student to learn the practical part of his profession.

Special efforts will be made in the Surgical Clinics, to demonstrate surgical diseases of the mouth, and lectures on tumors of the jaw will be given.

The Superintendent will be in daily attendance at the Infirmary.

A progressive course of Clinical Lectures accompanied with practical demonstrations will be given covering the entire field of prosthesis and orthodontia.

The Junior and Middle classes will be divided into sections and each individual student required to perform under the eye of the Superintendent or his assistants, the successive steps as presented, and no student will be allowed to take up new work until he has mastered the technique of the old. By the observance of this rule, the student at the end of the three years' course will be as well qualified practically, as graduates heretofore have been theoretically.

The large Clinic at the new Infirmary, supplies abundant material for practical work in operative dentistry, prosthesis and orthodontia.

DENTAL TECHNICS.

Special courses are given during the first year for manual training in the mechanieal operations of dentistry.

These comprise practical instruction by class work, the student taking impressions, making sets of teeth, crowns, bridges, etc., treating the more ordinary diseases of the teeth, and performing operations upon natural teeth set in convenient forms; and also a study of the anatomy and physical structure of the teeth, etc. Each operation is taken up separately, beginning with the simplest, and each must be completed in a manner satisfactory to the demonstrator. This method of teaching, though comparatively new, has proven the best yet devised for the rapid attainment of the high degree of manual skill required in the practice of dentistry.

* OPERATIVE TECHNICS.

Typical sets of teeth must be selected from miscel-laneous collections, and free-hand drawings made of typical tooth forms. Dissections of teeth; the making of silhouette prints of same to show forms of the inner walls of pulp chambers and canals, and the relation of dentine and enamel.

A study of the most important technical and scientific words and of the medicines most used in dental practice.

A study of all the materials in common use for filling teeth and practice in the preparation and inserting of them.

Practice in the shaping of cavities and handling of the instruments required.

Practice in preparation and filling of root canals.

A study of instruments, their proper naming, and use.

The general purposes of this course are:—

Manual training.

Familiarity with teeth.

Habits of order and system and the training of individual observation and reasoning.

PROSTHETIC TECHNICS.

Taking impressions of the mouth and the practical use of all the ordinary materials used for that purpose.

The making and repairing of vulcanite plates, making dies, swaging plates backing and soldering teeth upon metal plates, making of crowns of all kinds. The assembling of crowns to make bridges. Practice in the making and tempering of instruments. The operations in these courses require a large number of teeth. It will be to the interest of the student if he will bring all of the natural teeth he can obtain.

A list of instruments will be furnished the student at the beginning of the term. Those for the Operative Technics cost about \$15. Those for the Prosthetic Technics cost about \$18. These instruments will be

needed subsequently for work in the infirmary and laboratory, and are required before the student begins class work.

MECHANICAL DENTISTRY.

Much more attention is given to the laboratory than to the lecture room. A skilled demonstrator devotes his entire time to the classes. The lectures are intended only as adjuncts to the practical work. The subjects considered are: The extraction of teeth with the accidents attending the same. The administration of the various anæsthetics used in extracting, and the treatment and preparation of the mouth before inserting artificial dentures.

The chemical and physical properties of the various impression materials and the materials used as bases for plates.

The artistic selection of teeth for special cases.

Observations on fuels and the various methods of generating and applying heat. Especial attention is also given to that part of Metallurgy pertaining to the metals used by dentists, *i. e.*, gold, silver, copper, zinc, lead, tin, aluminum, etc., together with their most important alloys.

DENTAL SCIENCE.

This course embraces lectures on the special and minute anatomy of the teeth. Their origin and development, normal and abnormal, including their

histological characteristics. The eruption of the teeth and the diseases incident thereto. The pathological relation of the teeth to other parts of the organism, together with the symptoms, causes and treatment of diseases which involve the dental structures.

The phenomena of inflammation.

The etiology, classification, symptomatology, and treatment of the various forms of pulpitis, pericementitis and of the degenerations and the atrophies.

The phenomena of caries. The influence of bacteria in caries and other pathological conditions.

A classification of the remedial agents, local and systemic, employed in dental practice.

SCHEDULE OF STUDIES.

FIRST OR JUNIOR YEAR.

Subjects completed the First Year.

Dental Anatomy.

Materia Medica.

Comparative Anatomy, with Dissection.

Pharmacy.

Subjects Taken First Year and Continued During Second Year.

Descriptive Anatomy.

Practical Anatomy.

Therapeutics.

Mechanical Dentistry.

Dental Technology, Lecture and Laboratory Work.

Metallurgy.

SECOND OR MIDDLE YEAR.

Subjects Completed the Second Year.

- Descriptive Anatomy.**
- Therapeutics.**
- Chemistry.**
- Mechanical Dentistry.**
- Metallurgy.**
- Orthodontia.**

Subjects Taken Second Year and During Third Year.

- Physiology.**
- Operative Dentistry.**
- Institutes of Dental Science.**

THIRD OR SENIOR YEAR.

Subjects completed the Third Year.

- Physiology.**
- Hygiene.**
- Surgery and Clinical Surgery.**
- Operative Dentistry.**
- Institutes of Dental Science.**

**REQUISITES FOR THE DEGREE OF DOCTOR
OF DENTAL MEDICINE.**

The candidate for graduation must be twenty-one years of age.

He must have attended three regular annual courses (no two courses of which shall have been taken during the same year) of dental instruction, the last of which must have been the Senior Course of this College.

He must treat thoroughly patients requiring all the usual dental operations, and under the eye of the Demonstrator, or Superintendent of the Infirmary, construct practical artificial cases. He must undergo a satisfactory examination on all the branches taught in the College.

Graduates of reputable medical colleges will be admitted to the second-year course and will be excused from lectures and examinations upon general anatomy, general pathology, chemistry, physiology and *materia medica* and therapeutics, but will be required to take the courses in operative and prosthetic techniques.

Application for examination for the degree of D.M.D. must be made in writing by the 1st of April, each year, stating the claims of the applicant for such a degree.

This application should be accompanied by at least three letters of recommendation attesting good moral character from prominent citizens of the place of residence of the applicant.

FEES.

Matriculation Fee (paid but once).....	\$ 5 00
Tuition, each Session.....	100 00

No charge for demonstrator's ticket or diploma.

The entire fee is due and must be paid at the beginning of each term. No student will be permitted to take final examination unless tuition fees have been paid.

INSTRUMENTS.

The operating rooms and laboratory at the Infirmary are amply supplied with stationary furniture, such as chairs, lathes, benches, furnaces, etc. Students are required to provide themselves with such articles of chemical apparatus as test-tubes, beakers, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

TEXT-BOOKS.

LATEST EDITIONS ONLY.

Anatomy—Gray.

Chemistry—Long's Experimental and Analytical Chemistry.

Physiology—Foster's Text-book of Physiology.

Pharmacy—United States Pharmacopoeia.

Materia Medica and Therapeutics—H. C. Wood's.

Principles and Practice of Dentistry—Harris.

Mechanical Dentistry—Essig. Richardson.

Orthodontia—Guilford. Farrar.

Surgery—"The American Text-book of Surgery."—Keen and White.

Operative Dentistry—Taft. Kirk.

Dental Anatomy and Pathology—Bödecker. Tomes.

Histology—Piersol.

Books of Reference—American System of Dentistry; Harris Dental Dictionary; Garretson or Tomes Dental Surgery; Talbot—Orthodontia; Kingsley and Coles—Oral Deformities; Newth's Inorganic Chemistry; Simon Manual of Chemistry.

PRIZES.

Prizes will be awarded as follows:

The Missouri Dental College Faculty Prize.—An elegant gold medal to the graduate receiving the highest vote on final examination.

The S. S. White Dental Manufacturing Company Prize.—A set of Varney Pluggers to the graduate excelling in Operative Dentistry.

The John Rowan Dental Depot Prize.—A No. 2 Bonwell Engine Mallet to the graduate standing second best in practical Operative Dentistry.

The St. Louis Dental Manufacturing Company Prize.—A laboratory lathe for the best specimen case of artificial teeth.

For further information concerning the Dental College apply to the Secretary Dr. A. H. Fuller, D.D.S., or to

DR. H. H. MUDD,
Dean of the Dental College,
2640 Locust Street.

SUMMARY OF GRADUATES.

OF THE COLLEGE.....		193
OF THE SCHOOL OF ENGINEERING.....		181
OF THE LAW SCHOOL.....		595
OF THE MEDICAL COLLEGE.....		2,103
OF THE DENTAL COLLEGE.....		354
		3,426
HONORARY GRADUATES.....		12
		3,438

SUMMARY OF MEMBERS OF THE UNIVERSITY.

	-1896-97-		-1897-98-	
	Stu.	Instr.	Stu.	Instr.
COLLEGE AND SCHOOL OF ENGINEERING	151	27	138	24
LAW SCHOOL.....	165	15	155	15
MEDICAL COLLEGE.....	85	33	92	34
DENTAL COLLEGE.....	99	17	124	16
TOTAL GRADUATE AND UNDERGRADUATE DEPARTMENTS.....	500	92	509	89

PREPARATORY SCHOOLS.

SMITH ACADEMY.....	301	23	348	23
MARY INSTITUTE.....	353	29	365	27
MANUAL TRAINING SCHOOL.....	241	15	206	15
	895	67	919	65
TOTAL GRADUATE, UNDERGRADUATE, AND PREPARATORY DEPARTMENTS....	1,395	159	1,428	154
SCHOOL OF FINE ARTS.....	274	11	259	11
TOTAL CONNECTED WITH THE UNIVER- SITY.....	1,669	170	1,687	165

OFFICERS OF THE ALUMNI ASSOCIATIONS.

UNDERGRADUATE DEPARTMENT.

President: MR. GEO. M. BARTLETT.
Vice-President: MR. S. BENT RUSSELL.
Secretary and Treasurer: MR. WILLIAM D. HUDSON.
Executive Committee: MR. WILLIAM H. BRYAN, MR. THOMAS G. RUTLEDGE, MR. HENRY BRANCH.

LAW DEPARTMENT.

President: MR. FREDERICK A. WISLIZENUS.
First Vice-President: MR. DANIEL G. TAYLOR.
Second Vice-President: MR. B. SCHNURMACHER.
Secretary: MR. V. MOTT PORTER.
Treasurer: MR. GUSTAVUS A. BUDER.
Executive Committee: MR. VIRGIL RULE, MR. EDWARD S. ROBERT, MR. EBEN RICHARDS.

MEDICAL DEPARTMENT.

President: DR. WILLIS HALL.
Vice-President: DR. JOHN McH. DEAN.
Secretary: DR. N. M. SEMPLE.
Treasurer: DR. F. C. E. KUHLMAN.
Executive Committee: DR. J. B. SHAPLEIGH, DR. E. S. SMITH, DR. E. C. BURNETT, DR. A. E. EWING.

DENTAL DEPARTMENT.

President: DR. J. G. HARPER.
Vice-President: DR. O. H. MANHARD.
Secretary: DR. J. B. KIMBROUGH.
Treasurer: DR. C. E. SCHUMACHER.
Executive Committee: DR. C. E. SCHUMACHER, DR. A. H. FULLER, DR. T. L. POEPPELING.

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WASHINGTON UNIVERSITY.



1898-'99.

A CATALOGUE
OF THE
OFFICERS AND STUDENTS
IN
Washington University,
WITH THE
COURSES OF STUDY
FOR THE
ACADEMIC YEAR 1898-99.

ST. LOUIS:
PERRIN & SMITH, PRINTERS,
1899.

CALENDAR FOR 1899 and '1900.

1899.

April.		March.		Feb.		Jan.	
Sun.	Mon.	Sun.	Mon.	Sun.	Mon.	Sun.	Mon.
1	2	3	4	5	6	7	8
8	9	10	11	12	13	14	15
15	16	17	18	19	20	21	22
22	23	24	25	26	27	28	29
29	30	31					
Aug.		July.		June.		May.	
Sun.	Mon.	Sun.	Mon.	Sun.	Mon.	Sun.	Mon.
1	2	3	4	5	6	7	8
8	9	10	11	12	13	14	15
15	16	17	18	19	20	21	22
22	23	24	25	26	27	28	29
29	30	31					
Dec.		Nov.		Oct.		Sept.	
Sun.	Mon.	Sun.	Mon.	Sun.	Mon.	Sun.	Mon.
1	2	3	4	5	6	7	8
8	9	10	11	12	13	14	15
15	16	17	18	19	20	21	22
22	23	24	25	26	27	28	29
29	30	31					

1900.

UNIVERSITY CALENDAR.

1898-99.

ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 20-21.

ENTRANCE EXAMINATION to the Law School, Wednesday,
September 21.

ENTRANCE EXAMINATION to the Medical College, Tuesday
and Wednesday, September 20-21.

ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 20-21.

SCHOOL OF FINE ARTS opens Monday, September 19.

UNDERGRADUATE DEPARTMENT opens Thursday, Septem-
ber 22.

LAW SCHOOL opens Thursday, September 22.

MEDICAL COLLEGE opens Thursday, September 22.

DENTAL COLLEGE opens Thursday, September 22.

HOLIDAY, Thanksgiving Day, Thursday, November 24.

VACATION, December 23, 1898, to January 2, 1899, inclusive.

FIRST TERM ends Saturday, January 28.

SECOND TERM begins Monday, January 30.

HOLIDAY, Washington's Birthday, Wednesday, February 22.

MEDICAL COLLEGE closes Friday, April 21.

DENTAL COLLEGE closes Thursday, April 27.

COMMENCEMENT, Medical and Dental Colleges, Thursday,
April 27.

UNIVERSITY HOLIDAY, Friday, May 12.

EXHIBITION OF WORK of School of Fine Arts, June 7-9.

ENTRANCE EXAMINATION to the Undergraduate Department,
Monday and Tuesday, June 12-13.

COMMENCEMENT, Law School and Undergraduate Depart-
ment, Thursday, June 15.

VACATION, June 16 to September 28.

1899-1900.

ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 26-27.

ENTRANCE EXAMINATION to the Law School, Wednesday,
September 27.

ENTRANCE EXAMINATION to the Medical College, Tuesday
and Wednesday, September 26-27.

ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 26-27.

SCHOOL OF FINE ARTS opens Monday, September 25.

UNDERGRADUATE DEPARTMENT opens Thursday, Septem-
ber 28.

LAW SCHOOL opens Thursday, September 28.

MEDICAL COLLEGE opens Thursday, September 28.

DENTAL COLLEGE opens Thursday, September 28.

HOLIDAY, Thanksgiving Day, Thursday, November 30.

VACATION, December 22, 1899, to January 1, 1900, inclusive.

FIRST TERM ends Saturday, February 3.

SECOND TERM begins Monday, February 5.

CORPORATION.

President:

ROBERT S. BROOKINGS.

Vice-President:

HENRY HITCHCOCK.

Secretary:

GEORGE M. BARTLETT:

Treasurer:

WINFIELD S. CHAPLIN.

Office in University Building, 1704 Washington Avenue.

DIRECTORS.

HENRY HITCHCOCK	54 Vandeventer pl.
JAMES E. YEATMAN	412 Olive st.
GEORGE E. LEIGHTON	803 Garrison av.
EDWIN HARRISON	3747 Westminster pl.
HENRY W. ELIOT	2635 Locust st.
SAMUEL CUPPLES	3673 West Pine boul.
GEORGE A. MADILL	4140 Lindell boul.
WILLIAM L. HUSE	9 Westmoreland pl.
ROBERT S. BROOKINGS	2329 Locust st.
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ADOLPHUS BUSCH	1 Busch place.
DAVID R. FRANCIS	4421 Maryland av.

OFFICERS
OF
GOVERNMENT AND INSTRUCTION

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Chancellor 3636 West Pine boul.

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Mathematics and Applied Me-
chanics 3013 Hawthorne boul.

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the College 529 Spring av.

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and Astronomy

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University Professor of American
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WILLIAM TRELEASE, S.D.,
Engelmann Professor of Botany. Mo. Botanical Garden.

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7

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*Absent on leave.

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 EDWARD M. CAMPBELL, Instructor Studio Building.
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 CHARLES P. DAVIS, Instructor. 3418 Lucas av.
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 CHARLES A. WINTER, Instructor
 LAURANCE EWALD, Instructor.. 946 Maryville av.

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 LL. B., Lecturer on Constitutional Law 3733 Washington boul.

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9

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Criminal Law Jennings, Mo.
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JAMES P. MAGINN, LL. B., Lec-
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EBEN C. RICHARDS, LL. B., Lec-
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fessor of the Principles of Medi-
cine 4244 Washington bl.
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Professor of the Principles and Prac-
tices of Surgery and Clinical Sur-
gery 3525 Lucas av.
GUSTAV BAUMGARTEN, M.D.,
Professor of the Practice of Med-
icine 2643 Chestnut st.
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and Professor of Clinical Sur-
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Professor of Clinical Medicine... 2647 Washington av.
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Professor of Diseases of Children. 1837 Lafayette av.
JOHN GREEN, M. D., Professor of
Ophthalmology 2670 Washington av.

- JAMES M. SCOTT, M. D., Professor of Obstetrics 3313 Morgan st.
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- JOHN B. SHAPLEIGH, M.D., Secretary of the Medical Faculty and Professor of Otology..... 3840 Delmar av.
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- AMAND N. RAVOLD, M. D., Professor of Bacteriology and Hygiene 2806 Morgan st.
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- LEWIS L. McCABE, M. D., Instructor in Clinical Medicine..... 1919 N. Grand av.

OFFICERS OF GOVERNMENT AND INSTRUCTION. 11

- JULES F. VALLE, M. D., Instructor in Obstetrics 3301 Washington av.
- EDWIN C. BURNETT, M. D., Lecturer on Syphilis S. E. cor. Jefferson av. and Olive st.
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- ALBERT E. TAUSSIG, M.D., Lecturer on Clinical Medicine..... 2647 Washington av.
- JOSEPH MASERANG, JR., Ph. G., Instructor in Materia Medica and Pharmacy 3838 Easton av.
- THEODOR KODIS, M. D., Lecturer and Demonstrator in Pathology, and Curator of the Museum. 3126 Morgan st.
- HENRY C. HARTMAN, M.D., Lecturer on Orthopoeic Surgery..... 1301 St. Ange av.
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- MISSOURI DENTAL COLLEGE.
- ELISHA H. GREGORY, M.D., LL. D., Professor of the Principles and Practice of Surgery and Clinical Surgery 3525 Lucas av.
- HENRY H. MUDD, M.D., Dean and Professor of Clinical Surgery. 3720 Washington boul.

- PAUL Y. TUPPER, M. D., Professor of Descriptive Anatomy..... 4236 Delmar boul.
EDGAR M. SENSENEY, M.D., Professor of Therapeutics and Materia Medica 2829 Washington av.
ALBERT H. FULLER, M.D., D.D.S., Secretary and Professor of Operative Dentistry Columbia Building.
CHARLES R. SANGER, A.M., Ph.D., Professor of Chemistry 3040 Washington av.
ORION W. BEDELL, M.D., D.M.D., Professor of the Institutes of Demonstrator of Mechanical Dentistry..... 1909 Lafayette av.
ROBERT R. VAUGHAN, D. D. S., Demonstrator of Mechanical Dentistry 3109 Olive st.
VILRAY P. BLAIR, M. D., Demonstrator of Practical Anatomy..... 319 N. Grand av.
JOHN G. HARPER, D.D.S., Demonstrator of Mechanical Dentistry 2815 Thomas st.
JOSEPH MASERANG, JR., Ph.G., Instructor in Materia Medica and Pharmacy 3838 Easton av.
CHARLES W. RICHARDSON, D.D.S., Professor of Dental Technics..... 1814 Locust st.
EDWARD H. ANGLE, D.D.S., Professor of Orthodontia..... 721 N. Garrison av.
GEORGE M. TUTTLE, M.D., Lecturer on Dental Anatomy..... 2942 Washington av.
WILLIAM H. WARREN, A.M., Ph.D., Instructor in Chemistry..... 4373 Cook av.
JOHN E. NYMAN, D.D.S., Lecturer on Porcelain Work..... Chicago, Ill.

GENERAL STATEMENT.

Washington University, founded in the city of St. Louis, under an Act of Incorporation by the State of Missouri, approved February 22, 1853, is intended to embrace the whole range of University studies except Theology, and to afford opportunity of complete preparation for every sphere of practical and scientific life.

By the eighth article of the Constitution, "No instruction, either sectarian or religious, or partisan in politics, shall be allowed in any department of the University; and no sectarian or partisan test shall be used in the election of professors, teachers, or other officers of the University for any purpose whatsoever. This article shall be understood as the fundamental condition on which all endowments, of whatsoever kind, are received." The Constitution also declares the article now quoted "not subject to alteration at any time;" but to guard against all encroachments in this important particular, the Directors have obtained from the General Assembly an amendment to the Charter, by which said article is incorporated in the same, and thereby placed beyond the power of any future Board of Directors. The Act of Amendment, approved February 12, 1857, declares:

"Sec. 2. No instruction, either sectarian in religion, or partisan in politics, shall be allowed in any department of said University; and no sectarian or

party test shall be allowed in the election of professors, teachers or other officers of said University; or in the admission of scholars thereto, or for any purpose whatever.

"Sec. 3. It shall be the duty of the Board of Directors of the said University, upon being informed of any violation of the second section of this Act, forthwith to institute an inquiry into the charge or charges that may be preferred, in respect thereof, by any credible person, in writing, against any officer of said University, and if it shall appear that any officer of said University has violated the second section of this Act, the Board of Directors shall forthwith remove any such person so offending from any office which he may then fill in any Department of said University; and such person so removed shall be forever thereafter ineligible to any office in said University.

"Sec. 4. In case the Board of Directors, upon being notified in writing, by any credible person, of a violation of the second section of this Act, shall refuse or neglect to investigate the charges thereupon preferred against any officer of said University, it shall be competent for the St. Louis Circuit Court, or the St. Louis Court of Common Pleas, to compel the Board of Directors, by mandamus, to perform their duty in investigating such charge, and to show their performance of such duty to the satisfaction of the Court having cognizance of the matter, and all

proceedings under this section shall be summary, and conducted to a conclusion with as little delay as possible; and the power hereby given to said courts may be exercised by the judge of either of said tribunals in vacation."

On the 22d of April, 1857, the formal inauguration of Washington University took place with appropriate exercises in University Hall, and an oration delivered by Hon. Edward Everett, in the Mercantile Library Hall. An advanced scientific class was organized at that time. An Academy, now known as Smith Academy, had then been in operation about three years. The College and Mary Institute were organized in 1859, and the first Senior Class was graduated from the College in June, 1862. The Law School was organized in 1867, the Polytechnic School, now known as the School of Engineering, in 1870, the School of Fine Arts and the Manual Training in 1879, the School of Botany in 1885. The St. Louis Medical College, founded in 1842, was admitted as a department of the University in 1891, and the Missouri Dental College in 1892.

To show the principle on which endowments are invited, the fifth, sixth, and seventh articles of the Constitution are here inserted.

"ARTICLE V.

"ENDOWMENT OF PROFESSORSHIPS.

"Any person may endow in whole or in part a specified professorship in the said University; and if,

in the opinion of the Board of Directors, said endowment shall be sufficient for the support of said professorship, said professorship shall bear the name of its founder forever, unless at the time of the endowment he shall otherwise direct.

“ARTICLE VI.

“ENDOWMENT OF DEPARTMENTS.

“Any person may found, by an adequate endowment, a specified department in said University; provided the plan of its organization and its purposes are approved by the Board of Directors, and if said endowment shall, in the opinion of said Board, be sufficient for the perpetual support of said department, it shall bear the name of the founder thereof forever, unless he shall otherwise direct at the time of endowing the same.

“ARTICLE VII.

“SPECIFIC FUNDS.

“All funds and property of whatever nature and description, contributed to the endowment or foundation of a professorship or department, shall forever be faithfully applied to the specific purpose for which contributed, and to no other object whatsoever, without the written consent of the donor or founder thereof, or his heirs and assigns, and also the written consent of two-thirds of the Directors first had and obtained; provided, however, that said funds and property in this article named shall never be diverted from the purposes of said University.”

WASHINGTON UNIVERSITY

COMPREHENDS:

I. UNDERGRADUATE DEPARTMENT;

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

Washington Avenue and Seventeenth Street.

II. HENRY SHAW SCHOOL OF BOTANY.

1724 Washington Avenue.

III. ST. LOUIS SCHOOL OF FINE ARTS.

Nineteenth and Locust Streets.

IV. ST. LOUIS LAW SCHOOL.

1417 Locust street.

V. ST. LOUIS MEDICAL COLLEGE.

1806 Locust Street.

VI. MISSOURI DENTAL COLLEGE.

1814 Locust Street.

The following schools have also been organized under the charter of the University:

I. SMITH ACADEMY.

Washington Avenue and Nineteenth Street.

CHARLES P. CURD, A. M., Principal.

II. MARY INSTITUTE.

Locust and Beaumont Streets.

EDMUND H. SEARS, A. M., Principal.

III. MANUAL TRAINING SCHOOL.

Washington Avenue and Eighteenth Street.

CALVIN M. WOODWARD, Ph. D., Director.

For particulars in regard to these schools see special catalogues, to be had on application to the Principals or Director.

UNDERGRADUATE DEPARTMENT.

THE COLLEGE.

THE SCHOOL OF ENGINEERING.

UNDERGRADUATE DEPARTMENT.

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

WINFIELD S. CHAPLIN,
Chancellor.

PROFESSORS.

SYLVESTER WATERHOUSE,
Professor of Greek.

CALVIN M. WOODWARD,
Professor of Mathematics and Applied Mechanics.

GEORGE E. JACKSON,
Professor of Latin.

MARSHALL S. SNOW,
Professor of History, and Dean of the College.

FRANCIS E. NIPHER.
Professor of Physics.

EDMUND A. ENGLER,
Professor of Mathematics and Descriptive Geometry and
Dean of the School of Engineering.

Professor of Mathematics and Astronomy.

JOHN B. JOHNSON,

Professor of Civil Engineering.

WILLIAM TRELEASE,

Professor of Botany.

CHARLES R. SANGER,

Professor of Chemistry.

JAMES MAIN DIXON,

Professor of English.

OTTO HELLER,

Professor of German.

JOHN H. KINEALY,

Professor of Mechanical Engineering.

GUSTAV HAMBACH,

Adjunct-Professor of Geology.

INSTRUCTORS.

HOLMES SMITH,
Instructor in Drawing.

AUGUST MUEGGE,
Instructor in Gymnastics.

***CARL KINSLEY,**
Instructor in Physics.

WILLIAM H. RUSH,
Instructor in Botany.

GASTON DOUAY,
Instructor in French.

HERMANN VON SCHRENK,
Instructor in Botany.

JOHN J. LICHTER, JR.,
Instructor in Astronomy.

ROBERT F. HOXIE,
Instructor in Economics.

GELLERT ALLEMAN,
Instructor in Chemistry.

ALEXANDER S. LANGSDORF,
Instructor in Physics.

*Absent on Leave.

STUDENTS.

SENIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Adkins, James R.....	Civ. Eng.....	1414 S. Ewing av.
Avis, Mabel Dean.....	Arts	4115 Delmar boul.
Bonnet, Frederick, Jr.....	Chem.....	2719 Russell av.
Bouton, Walter Scott	Civ. Eng.....	2909 Park av.
Bryan, Archibald Moore.....	Civ. Eng.....	Washington, Mo.
Cave, Rhodes Estil.....	Arts.....	3921 Delmar boul.
Evers, Helen Margaret	Arts.....	1861 N. Market st.
Hendrich, Charles August	Civ. Eng.....	2805 Lafayette av.
Hospes, Theresa Bertha.....	Arts	Old Orchard, Mo.
Kimball, Arthur Campbell..	Arts.....	Kirkwood, Mo.
Kirchner, Elida Caroline.....	Arts.....	4234 A Easton av.
Pettus, Charles Parsons.....	Arts.....	2834 Chestnut st.
Robinson, Arthur Dwight	Mech. Eng.....	4174 West Belle pl.
Schwab, Helen Hannah.....	Arts.....	4393 Westminster pl.
Shields, Walter.....	Civ. Eng	3860 Delmar boul.
Tyler, Eleanor Murdoch.....	Arts	3215 Lucas av.
Woermann, Frederick Christian.....	Civ. Eng	2802½ Cass av.

Total, 17

JUNIOR CLASS.

Burgess, Samuel Allen.....	Arts	2933 Harper st.
Chandler, Albert Barbour.....	Arts	Kirkwood, Mo.
Dicke, Edward Christian	Civ. Eng	1911 Hebert st.
Eilers, Le Roy Matthew	Arts	1616 King's Highway
Farnham, Anna May.....	Arts	1943 Thomas st.
Goebel, Julius Christian.....	Arts	1215 S. 14th st.
Grimm, Henry England.....	Civ. Eng	3213 Eads av.

WASHINGTON UNIVERSITY.

NAMES.	COURSE.	RESIDENCE.
Henby, William Hastings.....	Civ. Eng.....	2631 Russell av.
Horwitz, Alexander Earle.....	Arts	1323 Carr st.
Kammerer, Alfred Louis.....	Chem	2724 Dayton st.
Klem, Mary Jeanette.....	Arts	1940 Arsenal st.
Koken, Ernest C. F.....	Civ. Eng.....	3522 Hawthorne boul.
Leavitt, Sherman.....	Chem.....	5515 Cabanne pl.
Lewis, John James	Arts	Webster Groves, Mo
McClure, Ralph Stanton.....	Civ. Eng.....	6814 Smiley av.
Merner, Blanche	Arts	3968 Finney av.
Phillips, Silas Bent	Chem	4442 Morgan st.
Pierson, Ruth Howard.....	Arts.....	1211 N. Garrison av.
Ritschy, Lewis John.....	Mech. Eng.....	2744 Russell av.
Schmedtje, Adolph Henry.....	Chem	2337 S. 13th st.
Steinbreder, Alvina Louisa.....	Arts.....	5043 Vernon av.
Stokes, Victor Hugo.....	Civ. Eng	Tecumseh, Mich.
Toensfeldt, Hans Carl.....	Civ. Eng	912 S. 9th st.
		Total, 23

SOPHOMORE CLASS.

Alt, Arnold Dettman.....	3819 West Pine boul.
Baumgarten, Karl	2643 Chestnut st.
Bennett, Maud Warne.....	2903 Dickson st.
Black, Gurdon Gilmore.....	Clayton, Mo.
Brown, Mabel Wolcott.....	1332 N. King's Highway.
Bryan, Grace	3746 Windsor pl.
Candler, Arthur Van Buren.....	6703 S. 6th st.
Crecillus, Florence Lesette.....	1110 Dillon st.
Eliot, Henry Ware, Jr.....	2635 Locust st.
Erskine, Lucille	4975 Nabada st.
Flickner, Martha Ver Bryck.....	2200 Salisbury st.
Fulhage, Louise	1700 Chouteau av.
Glasgow, Carr Lane.....	2847 Washington av.
Glasgow, William Ross.....	2847 Washington av.
Greensfelder, Albert Preston.....	Central, Mo.
Griffin, Everett Paul.....	2842 W. Chestnut st.
Harting, Otto Frederick.....	2705 N. 11th st.

NAMES.	RESIDENCE.
Haydock, Daniel Winters.....	Normandy, Mo.
Hudson, Marjorie Hannah.....	1820 O'Fallon st.
Judd, Nellie	1431 Locust st.
Lyon, Dora Laurina.....	4415 Kennerly av.
Miller, Jeanette Charlotte.....	3628 Cass av.
Mueller, Laura Carlyn.....	5058 Kensington av.
Olmstead, Mabel	4348 Garfield av.
Senseney, Eugene Towner.....	2829 Washington av.
Sessinghaus, Emilie	2901 Rauschenbach av.
Snyder, Allen Lane.....	4111 Delmar boul.
Trail, Mary Wilson.....	3513 Laclede av.
Tuholske, Rose	2337 Locust st.
Vegely, Norman Oscar.....	St. Joseph, Mo.
Wiederholdt, Ernest Ferdinand.....	1211 Morrison av.
	Total, 31.

FRESHMAN CLASS.

Battle, Anita Frances.....	3714 Stoddard st.
Bolt, Richard Arthur.....	5610 Bartmer av.
Carter, Edwin Farnham	Farmington, Mo.
Castellanos, Leopoldo Justo.....	2140 Lafayette av.
Chandler, Harold Brooks.....	Kirkwood, Mo.
Cutts, Francis Thacher.....	3887 Washington av.
Dawes, Henry Arthur.....	4322 Prairie av.
Denton, Francis Douglas.....	5404 Maple av.
Devoy, Charles Louis.....	3111 Laclede av.
Eilers, Ralph	4935 Easton av.
Ferriss, Henry T. Simon.....	5828 Cabanne pl.
Golsan, Leilla Belle.....	4008 Delmar boul.
Good, John Harrison.....	Kirkwood, Mo.
Hammel, Waldemar Edwin	6631 Michigan av.
Jacobs, Edgar Weinstein.....	2824 Clark av.
Lachmund, Meta Baxter	2727 Russell av.
Magill, Frank H.....	1131 N. 18th st.

NAMES.	RESIDENCE.
More, Lucius Elmer.....	5881 Plymouth av.
Muench, Alice Frances.....	3117 Longfellow boul.
Murphy, Robert Lincoln.....	2900 St. Vincent av.
Nipher, Mary Eugenia.....	3021 Dickson st.
Parker, George Ward, Jr.....	3405 Oak Hill av.
Pollard, Harry Moses.....	3015 Washington av.
Schade, Florence Garrell.....	2221 Benton st.
Scheel, Frederick Engelmann.....	Belleville, Ill.
Schulenburg, Gustavus C.....	2822 Eads av.
Schulte, Henry Frank George, Jr....	Oakville, Mo.
Shahan, William Ewing	Attolla, Ala.
Snow, Roger Don.....	4171 Shenandoah av.
Stodieck, John J.....	2014 S. Broadway.
Taylor, William Roland.....	4036 Westminster pl.
Whittemore, Audenried	68 Vandeventer pl.
Wiederholdt, Carl Alfred	1211 Morrison av.
Williams, Joseph A.....	4280 Page av.
	Total 34.,

**CANDIDATES FOR DEGREES NOT YET
CLASSIFIED.**

Daudt, Otto Armin.....	St. Charles, Mo.
Flanigan, Blanche.....	5019 Raymond av.
Feuerbacher, Max William.....	1126 Sidney st.
Champlin, Edith Marie.....	3510A Bell av.
Forder, Samuel Walker.....	S. St. Louis.
Gladfelter, Edith Ednah.....	4720 N. 20th st.
Jacobs, Max William.....	2307 S. 9th st.
Kelleter, Paul Delmar.....	3114 Illinois av.
Swift, Charlotte Bradshaw.....	3507 Washington av.
Thornton, Frances Roberta.....	Pulaski, Ia.
Tittmann, Alice Fabian.....	2732 Russell av.

NAMES.	RESIDENCE.
Wesseler, William Julius.....	2810 S. 13th st.
Wood, Eulalie.....	3429 Texas av.
	Total , 13.

SPECIAL STUDENTS.

Anheuser, Edward	3131 Russell av.
Bartlett, Roy	3021 Eads av.
Berkeley, Edward Fairfax III.....	4149 Delmar boul.
Bullock, George Benbow.....	5333 Maple av.
Burnham, Grace, A. B 1898.....	2942 Laclede av.
Carpenter, Blanche Eleanor.....	3660 Finney av.
Chaplin, Susan Elizabeth. A. B.	
1897	3636 W. Pine boul.
Donovan, Loras Marie.....	3037 Pine st.
Drake, Berthoud Francis, B. S.	
Princeton Univ., 1898.....	2912 Washington av.
Ericson, Helen M.....	2727 Russell av.
Fowler, John Richard.....	1401 S. Grand av.
Fulks, Elbridge Byron.....	California, Mo.
Gamble, Clarence Oliver.....	5961 Plymouth av.
Glasgow, William Hargadine.....	3656 Washington boul.
Hart, William Augustus.....	19 Portland pl.
Haydock, Anna Thompson.....	Normandy, Mo.
Holman, Charles Henry.....	3744 Finney av.
Hull, Stephen Allen.....	Seattle, Wash.
Lang, George, Jr.....	West Plains, Mo.
Langsdorf, Alexander Suss, B. S.	
1898	3133 Laclede av.
Lichter, John James, Jr., D. E.	
1890	5935 Virginia av.
McCluney, Clara	4427 Westminster pl.
McCullough, Roberta	1521 E. Grand av.
Maginnis, Eugenie Cecile.....	4338 Washington boul.
Markham, Frances G.....	4961 Berlin av.

NAMES.	RESIDENCE.
Nicholson, Clara Belle.....	516 N. Garrison av.
Prewitt, Ray Porterfield.....	3101 Pine st.
Reynolds, Stephen Clark.....	4124 Delmar boul.
Roever, William Henry, B. S.,	
1897	3628 St. Louis av.
Sessinghaus, Bertha Charlotte, A.	
B. 1898	2901 Rauschenbach av.
Siddy, Katherine	Webster Groves, Mo.
Stix, Alma....	3135 Washington av.
Stix, Edith	3135 Washington av.
Stuart, James Lyall.....	5346 Maple av.
Sylvester, James Joseph III.....	5739 Cabanne pl.
Wells, Harry Prescott, M. D.....	1833 Cass av.
Wiener, Sara Elizabeth.....	3854 Westminster pl.
Woodward, Margaret	3013 Hawthorne boul.
Wright, Eleanor Wetherell.....	30 Windemere pl.
	Total 39.

CANDIDATES FOR ADVANCED DEGREES.

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Pammel, Louis H.,	
B. S., Univ. of Wis., 1885,.....Botany.....	Ames, Ia.
Von Schrenk, Hermann,	
B.S., Cornell Univ., 1893.	
A.M., Harv. Univ., 1894.....Botany.....	St. Louis.
Webber, Herbert J.,	
B.S., Univ. of Neb., 1889.	
A.M., Univ. of Neb., 1890 ...Botany.....	Washington, D. C.

FOR THE DEGREE OF MASTER OF ARTS.

Adams, Grace,	
A.B., Wash. Univ., 1898.....History.....	St. Louis.

- Gilbert, Helen,**
 A.B., Wash. Univ., 1897 History St. Louis.
- Hospes, Cecilia Lizzette,**
 A.B., Wash. Univ., 1896.... German St. Louis.
- Jackson, Edward Fisher,**
 A.B., Wash. Univ., 1881.
 E. M., Wash. Univ., 1883.... Latin St. Louis.
- Pirscher, Charles Frederick,**
 A.B., Wash. Univ., 1896.... German St. Louis.
- Wittler, William Stephen,**
 A.B., Wash. Univ., 1898.... History St. Louis.

FOR THE DEGREE OF MASTER OF SCIENCE.

- Langsdorf, Alexander Suss,**
 B.S., Wash. Univ., 1898.... Elec. and Mag St. Louis.
- Selby, Augustine Dawson,**
 B. S., Ohio State Univ., 1893.... Botany..... St. Louis.
- Total, 11.

SUMMARY.

Seniors.....	17
Juniors	23
Sophomores	31
Freshmen	33
	—
	104
Candidates for degrees not classi-	
fied.....	13
Special Students.....	39
Candidates for Advanced Degrees	11
	—
Total	167

WASHINGTON UNIVERSITY.

COURSES OF INSTRUCTION PROVIDED IN
THE UNDERGRADUATE DEPARTMENT.

GREEK.

Professor Waterhouse. Three times a week.

1. Herodotus (selections).
2. Homer (selections). Isocrates: The Panegyric.
3. Demosthenes on the Crown; Thucydides (selections).
4. Selections from the Tragedians.
5. Selections from the Tragedians.
6. Plato (selections).

LATIN.

Professor Jackson. Three times a week.

1. Livy: Second Punic War. Books XXI-XXX.
2. Horace: Odes and Epodes; Satires and Epistles (selections).
3. Cleero: Philosophical Works (selections): Letters.
4. Plautus, Terence, Juvenal (selections).
5. Tacitus: Annals and Histories (selections).
6. Suetonius; Seneca: Moral Essays; Quintilian.
7. Seneca: Tragedies; Martial, Epigrams; Lucretius.
8. Pliny: Letters; Catullus, Tibullus, Propertius (selections).

ENGLISH.

Professor Dixon.

1. The elementary laws of all writing. Canons of correct usage in language. The function of grammars and dictionaries. Analysis of sentences. English idioms—Auxiliary verbs, conditional sentences, relative pronouns, etc. Literary forms—the paragraph, article, essay. The rules of letter-writing. Exercises in composition and analysis. *Three hours a week.*

2. Modern English prose, especially in the departments of narrative and exposition. Framing of synopses and abstracts. Exercises in journalistic paragraphs. *Three hours a week.*
3. English prose from Sidney and Dryden to Arnold, Newman and Lowell. Lectures on the development of English prose. *Three hours a week.*
4. Modern poetry: Keats, Tennyson, Browning. Sonnet literature. *Two hours a week.*
The laws of versification, with exercises. *One hour a week.*
5. Oratory as a branch of literature. The composition of an oration. Study of Bacon's essays. *Two hours a week.*
Rise and growth of the English novel. Exercises in story-writing. History of journalism and the essay. *One hour a week.*
6. Shakespeare; his life and literary career; the quartos and folios. English and German editors and commentators; textual criticism. Critical reading of one play (1899, *The Winter's Tale*). Exercises in analyzing the structure of the play, and the development and interaction of the characters. *Three hours a week.*
7. Spenser, Milton, (1899, *Comus*), Pope, Wordsworth. *Two hours a week.*
Old English grammar and composition. Lectures on philology. *One hour a week.*
8. Dialect literature. Ballad literature. Chaucer and Burns. *Two hours a week.*
Seventeenth century prose. *One hour a week.*

GERMAN.

Professor Heller. Three times a week.

- 1-2. Elementary Courses. Accidence; Translation from German into English and from English into German; German Conversation. Reading: *Zschokke*,

der zerbrochene Krug; *Fischer*, die wandelnde Glocke, *Leander* Traumereien, *Storm*, Immense.

Prescribed for Freshman who did not present German for admission.

- 3-4. German Syntax; Prose Composition. *Jaynes-Meissner*, *v Jagemann*, Syntax and Composition; German Conversation; Reading; *Sister*, das Heidedorf; *Freytag*, der Rittmeister von Alt-Rosen; *Meyer*, Gustav Adolfs Page, and a short comedy.
- 5-6. Composition continued; History of German Literature from its beginning to the death of Goethe. Reading: *Lessing*, Minna von Barnhelm, *Goethe*, Hermann u. Dorothea, Iphigenie auf Tauris; *Schiller*, das Lied von der Glocke, Wallenstein; Home-Reading.
- 7-8. History of German Literature from 1832-1897. Reading: Works of *Heine*, *Auerbach*, *Geibel*, *Scheffel*, *Freytag*, *Schueckling*, *Spielhagen*, *Heyse*, *Wildenbruch*, *Baumbach*, *Seidel*, *Keller*, Introduction to Seminar-work.
- 9-10. Introduction to the history of the German Language (*Weise*). Middle-High German Grammar (*Paul*); Reading; *Nibelungenlied*; *Hartmann von Aue*; *Walther von der Vogelweide*; *Ulrich von Liechtenstein* (in the original).
- 11-12. The poetical works of Goethe. One term devoted to the study of *Faust*; one term devoted to the other metrical works.
- 13-14. History of German Literature. An outline course. Courses 5-14 are conducted in German. Courses 9-10 are offered primarily to students of German parentage, and are the basis of a four years' graduate course. Courses 7-8 and 11-12 are given in alternate years. Courses 9-10 and 13-14 are given in alternate years. Students who elect German 13 are advised to take History 5 at the same time.

FRENCH.

Mr. Douay. Three times a week.

1. Elementary course: Pronunciation, elementary grammar, easy colloquial French.
2. Elements of syntax. Reading and translation of French prose.
A modern French comedy will be read as a part of Course 2.
- Courses 1 and 2 are prescribed for Freshman who did not present French for admission.*
3. Reading, conversation, dictation. French syntax. Translation of English into French.
4. Reading. Conversation. Study of Idioms. Elements of French composition. Outside reading.
- 5-6. Brief account of the development of French literature to the XVII. century. French literature of the XVII. century with illustrative readings. French essays on literary subjects.
- 7-8. French literature of the XVIII. and XIX. centuries, with illustrative readings. French essays.

N. B.—Courses 5-6, 7-8 are conducted in French. Recitations and lectures.

LOGIC.

Professor Dixon. Three times a week.

Province of Logic. Terms. Extension and intension; Logic and language. Propositions and their conversion; the predicate; division and definition. The Syllogism; regular, irregular, and compound conditional arguments. Fallacies and the best methods of treating them. Argument in orations and general literature.

PSYCHOLOGY.

Mr. Hoxie. Three times a week.

Elementary Psychology. A beginning course, using Höffding's *Outlines of Psychology* as text-book, with collateral reading in James' *Psychology*.

ECONOMICS.

Mr. Hoxie. Three times a week.

1. **Elementary Economics.** A beginning course in theory, prerequisite for all other courses.
2. **Advanced Economics.** A continuation of the study of theory, prerequisite for Courses 4 and 5.
3. **Public Finance.** Prerequisite for Course 7.
4. **Money and Banking.**
5. **History of Political Economy.**
6. **Industrial History.**
7. **Financial History of the United States.**
8. **Tariff History of the United States.**

HISTORY.

Professor Snow. Three times a week.

1. **History of England from Henry VII. to the end of the Stuart Period.** Lectures and recitations.
2. **History of England; Modern Period.**
3. **History of France under the Bourbon Kings to the Revolution.**
4. **The Revolution and the Empire.**
5. **Mediaeval Germany; The Holy Roman Empire to the Peace of Westphalia.**
6. **Eastern Europe since the Fall of the Western Empire.**
7. **Constitutional History; Constitution of the United States; Comparison of American and European Governments.**

8. Elements of International Law, with Study of Treaties.
Half Course.
9. General European History; Review and Philosophical Discussion. *Half Course.*

HISTORY OF ART.

Mr. Holmes Smith. Three times a week.

1. Ancient Art: Development of Architecture, Sculpture and Decoration in Ancient Egypt, Chaldæa, Assyria, Persia, Greece, and Rome.
2. Mediæval Art: Early Christian, Romaesque, and Gothic Art: Architecture, Sculpture, and Decoration.

Students in these courses may with advantage take Drawing 1.

MATHEMATICS.

Three times a week.

1. Higher Algebra. *Professor Engler.*
2. Plane and Spherical Trigonometry. *Professor Engler.*
3. Analytic Geometry. *Professor Engler.*
4. Differential Calculus. *Professor Engler.*
5. Integral Calculus. *Professor Woodward.*
6. Higher Plane Curves. *Professor Engler.*
7. Theory of Functions. *Professor Engler.*

APPLIED MECHANICS.

Professor Woodward.

1. Graphical Statics. Stress Diagrams for Frames, Trusses, and Bridges analyzed and drawn to scale. *Three hours a week.*
2. General Principles of Statics and Dynamics with illustrative examples. *Four hours a week.*
3. Rotation of Rigid Bodies. Character and distribution of Stress. Strength and Stiffness of Girders and Shafts *Four hours a week.*

4. Kinematics, Mechanism, including the general theory of transmission of energy by Gearing, Liquids, Belts, etc., with and without friction. *Two hours a week.*
5. Deflection of beams and girders and the Torsion of Shafts. *Two hours a week.*

PHYSICS.

1. Elementary Mechanics, including the Mechanics of Fluids. *Two lectures or recitations and two hours of laboratory work a week.*
Professor Nipher and Mr. Langsdorf.
2. Heat. *Two lectures or recitations and two hours of laboratory work a week.*
Professor Nipher and Mr. Langsdorf.
3. Optics. *Two lectures or recitations and two hours of laboratory work a week.*
Professor Nipher and Mr. Langsdorf.
4. Electricity and Magnetism. *Two lectures or recitations and two hours of laboratory work a week.*
Professor Nipher and Mr. Langsdorf.
5. Laboratory instruction in Electrical Measurements, including measurement of resistances, E.M.F. of batteries, the calibration of amperemeters and voltmeters, electrolytic measurements, magnetic determinations, heating effect of currents, electrical determinations of Joule's equivalent. *Six hours a week.*
Professor Nipher.
6. Introduction to the mathematical theory of Electricity and Magnetism, including the theory of Potential; capacity of bodies; energy of electrical systems; electrometers and electrostatic voltmeters, theory of magnetic measurements, magnetic fields due to electric currents, electrical induction, theory of dynamos and electric motors, alternating currents, tri-phased systems. *Three hours a week.*
Professor Nipher.

7. Dynamo-electric Machinery, including a discussion of the theory of series, shunt and compound dynamos and motors, conditions of efficiency of dynamos and motors, conditions of economic operations, transformers and transformer systems, electric lighting stations, electric railways, power stations, and secondary batteries. *Three lectures a week.*

Professor Nipher.

8. Laboratory work in testing electrical machinery. *Three hours a week.*

Mr. Langsdorf.

9. Designing of electrical machinery. *Six hours a week.*

Mr. Langsdorf.

10. Electrical Transmission of Power and Light, and the study of the designing of machinery for specific output and economy. *Three hours a week of lectures and two hours of laboratory work.*

Mr. Langsdorf.

- 11-12. Designing of Electrical Machinery. *Six hours a week.*

Mr. Langsdorf.

- 13-14. Laboratory Work. *Six hours a week.*

Mr. Langsdorf.

CHEMISTRY.

- 1-2. General Descriptive Chemistry. Lectures, laboratory work, and recitations. General theories of chemistry. Description of the elements and their compounds. *Six hours a week.*

Professor Sanger and Dr. Alleman.

Courses 1-2 must precede all others.

- 3-4. Qualitative Analysis. Mainly laboratory work. *Six hours a week.*

Professor Sanger and Dr. Alleman.

- 5-6. Quantitative Analysis, Elementary. Mainly laboratory work. Fundamental principles of gravimetric and volumetric analysis. *Six to twelve hours a week.*

Professor Sanger.

Courses 5-6 may be taken with courses 3-4, with the consent of the instructor.

- 7-8. Quantitative Analysis, Advanced. Laboratory work. Analysis of commercial and industrial materials and products. Sanitary examination of foods, water, etc. Gas Analysis. A knowledge of German is desirable. *Twelve hours a week.* Professor Sanger. *Courses 7-8 must be preceded by courses 5-6.*
- 9-10. Carbon Compounds. Lectures on the syntheses of the carbon compounds. Preparation of compounds illustrative of general synthetic methods. A knowledge of German is essential. *Three to six hours a week.* Professor Sanger. *Courses 9-10 must be preceded by courses 3-4 and 5-6.*
11. Advanced Inorganic Chemistry. Lectures on the history of chemistry and discussion of chemical theory. *Three hours a week.* Dr. Alleman. *Course 11 must be preceded by courses 3-4, 5-6, and 9-10.*
12. Crystallography and Descriptive Mineralogy. Lectures and conferences. *Three hours a week.* Dr. Alleman.
13. Determinative Mineralogy. Lectures and laboratory work. Determination of minerals by means of the blow-pipe. *Three hours a week.* Dr. Alleman. *Course 13 must be preceded by course 12.*
14. Assaying. Fire assays of gold, silver and lead ores and smelting products. Laboratory work. *Three hours a week.* Dr. Alleman.
- 15-16. Research in Theoretical Chemistry. Laboratory work and reference to chemical journals. Investigation of some subject in inorganic or organic chemistry. Preparation of a thesis. Professor Sanger.

- 17-18. Research in Applied Chemistry. Laboratory work and reference to chemical journals. Investigation of some subject in sanitary, technical, or analytical chemistry. Preparation of a thesis.

Professor Sanger.

BOTANY.

Professor Trelease and two Assistants. Three times a week.

1. Elementary Morphology and Organography, with reference to Ecology and Systematic Botany. Lectures and demonstrations.
2. Elementary Anatomy and Phanerogamic Botany. Laboratory work.
3. Synoptical Study of the Cryptogams. Laboratory work.
4. A special study of some group of Cryptogams.
5. Methods of Vegetable Histology. Laboratory work.
6. Histology and Morphology of the Higher Plants. Laboratory work.
7. A laboratory study of the minute anatomy of the lower Cryptogams.
8. Technical Microscopy of Timbers. Laboratory work.
Two hours a week.
9. Economic Botany. Lectures and laboratory demonstrations.
- 10-11. Applied Mycology. Laboratory work.
- 12-13. Garden Botany. Laboratory study of cultivated plants, at the Botanical Garden.
- 14-15. Vegetable Physiology. Laboratory work.
- 16-17. Bacteriological Technique. Laboratory work.
18. Demonstrations in Bacteriology. *Two hours a week.*
It is intended that course 1 shall always be followed by course 2, the two being preparatory to other electives. For the present, unless special reason to the contrary exists, courses 1 and 2 only will be given each year, the remaining electives being offered the alternate years, as follows:

For 1898-99.

First term, courses 1, 3, 12, 14, 16 and 18.

Second term, courses 2, 4, 9, 13, 15 and 17.

For 1899-1900.

First term courses 1, 5, 8, 10, 16 and 18.

Second term, courses 2, 6, 7 and 11.

Students who have taken courses 1 and 2, or have had their equivalent elsewhere, are admitted to any of the other elementary electives which can be taken without conflict with other university work; but students who desire to equip themselves as botanists are advised to take the electives as nearly as possible in the order in which they are offered, and on the completion of the elective courses should expect to devote not less than ten hours a week through an entire year to some piece of research work, selected under the advice of the Professor of Botany.

Special post-graduate study or investigation is planned to meet the needs of students, so far as the facilities of the School of Botany and the Botanical Garden permit.

ASTRONOMY.

Mr. Lichten.

1. Descriptive Astronomy. Lectures and recitations, with occasional work at the Observatory. *Three hours a week.*
2. Practical Astronomy. Applications of Astronomy to determination of Time, Latitude, Longitude and Azimuth. *Two hours recitation, two hours observatory work.* Spherical Trigonometry will be required for entrance to either of these courses.

ZOOLOGY.

Adjunct-Professor Hambach. Three times a week.

- 1-2. Lectures and laboratory demonstrations.

GEOLOGY.*Adjunct-Professor Hambach.*

1. General Course. *Two hours a week.*
- 2-3. Elementary and Systematic Geology. *Three hours a week.*
- 4-5. Palaeontology. *Three hours a week.*
6. Petrography. *Three hours a week.*

DRAWING.*Mr. Smith.*

1. Freehand Drawing in outline of groups of objects, both from the objects themselves and from memory. The accurate observation of form and its correct expression. The study of proportions and the laws of perspective involved in freehand drawing from objects. Freehand Drawing and Shading from objects with pencil, pen and ink, and brush. The study of light and shade as a means of expressing form on a flat surface. The methods of suggesting in sketches the character of different materials. *Six hours a week.*
2. Practical Freehand Lettering for use on plates and working drawings.
Geometrical Drawing. Those problems in construction that are needed in the study of descriptive geometry, machine design, etc. *Six hours a week.*
3. Machine Drawing. The making of working drawings from actual measurement of machines and parts of machines. The making of tracings and blue prints. Isometric Drawing from actual measurement or from sketches. In this work the drawings are line shaded. The essentials of Linear Perspective, with problems. *Four hours a week.*
4. Machine Drawing, Isometric Drawing, Perspective. Course 3 continued. *Two hours a week.*

DESCRIPTIVE GEOMETRY.

Professor Engler. Three times a week.

1. General problems of points, lines and planes; single curved, double curved and warped surfaces.
2. Tangency, intersections, shades and shadows, linear perspective.

*SHOP WORK.

1. Carpentry. *Three hours a week.* *Mr. Swafford.*
2. Pattern Making and Moulding. *Three hours a week.* *Mr. Bast.*
3. Foreign. *Six hours a week.* *Mr. Jones.*
4. Machine Shop Work. *Six hours a week.* *Mr. McFarlane.*

CIVIL ENGINEERING.

Professor Johnson.

1. Elements of Surveying. The use and adjustment of all the ordinary surveying instruments; simple land surveying and leveling. *Two recitations a week, with field practice Saturday forenoon.*
2. Topographical, Mining and Hydrographic Surveying. Topographical surveying by the transit and stadia method and also by the plane table; problems in laying out simple and compound curves and turn-outs, the passing of obstructions, adjustment of curves, etc., in railroad surveying. *Two recitations a week, with field practice Saturday forenoon.*
3. Surveying in the Field. *Three weeks devoted to field practice.* This practice includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a sys-

*The instruction in this subject is given in the shops and by the instructors of the Manual Training School.

tem of triangulation and levels which forms a part of the work of the survey. A railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time and azimuth, and various other special problems are worked out practically. The map of this survey is drawn after return from the field. The class goes to a suitable point at a distance from the city for this work.

4. Higher Surveying. City, railroad and geodetic surveying, with the principles of the construction of maps, the principles governing the economic location of railways; also the drawing of the map of the Field Survey. *Four recitations a week, and four hours a week in the drawing room.*
5. Stereotomy. Application of Descriptive Geometry to stone cutting, including groined, cloistered and skew arches. *Three hours a week. Professor Engler.*
6. The analysis of Stresses in Framed Structures. Analytical and graphical determinations of stresses in various styles of roof trusses, and of highway and railway bridges for distributed and concentrated, fixed and moving loads. *Three hours a week.*
7. The Designing of Framed Structures. The analysis of suspension, draw and arch bridges, and an analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs; the preparation of drawings showing all the details of some existing iron bridges, made from actual measurements taken by the students, and complete original designs of a plate girder, of a trussed roof, and of a highway bridge. *Four recitations a week, and eight hours a week drawing-room work.*

8. Masonry Structures. Building masonry foundations, retaining walls, dams, arches, chimneys, etc., together with the study of the strength of the material involved. *Two hours a week.*
9. Engineering Materials. A review of the principles of mechanics relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of methods of testing the strength of materials and a discussion of the essential properties of the more common materials of engineering construction. *Three hours a week.*
- 10-11. Testing Laboratory Practice. Experimental tests made by the student on the strength of various kinds of engineering materials. *Three hours a week.*
12. Sanitary Engineering and Irrigation. Modern irrigation methods, including the elements of a complete irrigation scheme, and the methods of drainage of land.
The collection, storage, pumping, settling, filtering and distribution of potable waters, as modified by the conditions governing the supply, and the demands of city service.
- Sewerage and Drainage of Cities. The practical designing of systems of sewerage and drainage of cities, together with the methods of sewage disposal, the principles of house drainage, sanitary plumbing, etc. *Four hours a week.*
13. Specifications and Contracts. The law of contracts as applied to engineering work, together with typical forms of specifications governing both the commercial and the technical features of engineering construction, and of all the related documents pertaining to engineering contracts. *One hour a week.*

14. Structural Drawing. To accompany course 6. *Six hours a week.*
15. Engineering Design. Supplementary to courses 7, 8 and 13. *Eight hours a week.*
16. Graduation Thesis. An extended study or design, involving original investigation or experiment.

MECHANICAL ENGINEERING.

Professor Kincaid.

1. Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work and trains of mechanism. *Four hours a week.*
 2. Machine Designing. Study of the principles. *Two hours a week.*
 3. Machine Designing. Shafting, gearing, belts and ropes. *Two hours a week.*
 4. Elementary Steam Engineering. Elements of thermodynamics and the theory of the steam engine; types of engines; valves and valve diagrams; indicator cards; boilers and chimneys. *Three hours a week.*
 5. Machinery Drawing. Work in the drawing-room to accompany Course 1. *Six hours a week.*
 6. Machinery Drawing. Details of the steam engine; link motions and valve diagrams. *Six hours a week.*
 7. Mechanical Laboratory. The standardization of instruments; oil testing. *Three hours a week.*
 8. Mechanical Laboratory. Lining up and adjusting the steam engine; use of the indicator; valve setting; tests of the engine. *Three hours a week.*
 9. *Hydraulics and Hydraulic Machinery. *Three hours a week.*
- Professor Woodward.*

*For the present year Theoretical Hydraulics will be taught by Professor Woodward.

10. Advanced Steam Engineering. Study of the details of different engines. Thermodynamics. *Three hours a week.*
11. Steam Engine Designing. *Three hours a week.*
12. Boiler and Chimney Designing. *Three hours a week.*
13. Mill and Factory Construction. *Two hours a week.*
14. Heating and Ventilating. *Three hours a week.*
15. Engine Designing. Work in the drawing-room to accompany Course 11. *Six hours a week.*
16. Engine Designing. Work in the drawing-room to accompany Course 11, for students in Electrical Engineering. *Three hours a week.*
17. Boiler Designing. Work in drawing-room to accompany Course 12. *Nine hours a week.*
18. Mechanical Laboratory. Tests of the steam and gas engines. *Three hours a week.*
19. Mechanical Laboratory. Boiler tests; visits to manufacturing establishments. *Three hours a week.*

THE COLLEGE.

ADMISSION.

Candidates for admission to the College will present themselves for examination on Monday, June 12, 1899, in room No. 8, east wing of the University Building, at 9 o'clock a. m. A second examination will be held on Tuesday, September 26, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other colleges are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

**REQUIREMENTS FOR ADMISSION TO THE
FRESHMAN CLASS.***

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals, proper construction of sentences; clearness and conciseness of expression.

Candidates are advised to study the following : A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*; Shakespeare's *Merchant of Venice*; Addison's Roger de Coverley papers from *The Spectator*, Goldsmith's *Vicar of Wakefield*, George Eliot's *Silas Marner*, Longfellow's *Evangeline*, and Emerson's essays on Friendship, Manners, Compensation, History, Character.

- II. *Algebra*, including radicals and equations of the second degree.
- III. *Elementary Plane and Solid Geometry*. Wells' or Wentworth's Geometry or an equivalent.
- IV. *Latin*. Grammar, four books of Cæsar, seven orations of Cicero, and six books of the *Aeneid* of Virgil. Prose Composition.
- V. *Modern Language*. Either French or German at the option of the candidate ; facility in reading ordinary prose at sight and knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.

*NOTE.—*Greek* is not required for admission; but candidates who intend to continue the study of Greek after admission to the College must fulfill the following requirements:—

Goodwin's Grammar and Reader; or Grammar, four books of the *Anabasis*, and three books of the *Iliad*; prose composition.

VI. *History.* Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools; of Greece and Rome, such as is found in Pennell's or Smith's Small Histories.

VII. *Elementary Physics.* Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

SPECIAL STUDENTS.

Special Students may be admitted to one or more courses in the college upon the following conditions:

1. That evidence of proper preparation, satisfactory to the committee and to the instructors concerned, be submitted before admission to any course or courses.

2. That candidates for degrees who fail in the work of the regular courses shall not have the privilege of becoming Special Students, unless such failure shall come from physical inability to do the required work.

3. That Special Students shall not be regarded as candidates for a degree.

All matters concerning Special Students are referred to a standing committee of the Faculty, which is composed of Professors Snow, Waterhouse and Sanger. Applications should be made to Professor Snow, Chairman.

ARRANGEMENT OF STUDIES IN THE COLLEGE.

FRESHMAN YEAR.

**Prescribed Studies.*

English, Courses 1 and 2.

German, Courses 1 and 2, or French, Courses 1 and 2, for those who do not present both of these languages for admission.

Elective Studies.

In addition to the prescribed studies, every Freshman is required to take each term elective studies amounting to *three full courses*. No Freshman may elect more than one course in the same subject without the consent of the Dean.

The following courses are open to Freshmen:

- Greek, 1, 2.
- Latin, 1, 2.
- English, 1, 2.
- German, 1, 2.
- French, 1, 2.
- History, 1, 2.
- Mathematics, 1, 2.
- Drawing, 1, 2.
- Physics, 1, 2.
- Chemistry, 1, 2.
- Botany, 1, 2.

A Freshman who is qualified to take a higher course in any study named above may do so, with the permission of the Instructor in the course and the Dean of the College.

SOPHOMORE AND JUNIOR YEARS.

The prescribed work of the Sophomore and Junior years consists of:

English, Courses 3, 4 and 5, 6.

*The figures indicate the numbers of the Courses of Instruction.
See pp. 30-46.

Besides the prescribed courses every Sophomore and every Junior is required to take each term *four elective courses*, or an equivalent amount of courses and half courses.

SENIOR YEAR.

Eight courses, all elective, are required for the Senior year.

CHOICE OF STUDIES.

Every student is required to give notice in writing to the Dean of the College on the first day of each term of his choice of studies for that term.

Changes may be made only by permission of the Dean, to whom application must be made in writing, with a full statement of reasons.

No student will be allowed to elect any course for which his previous training has not fully prepared him.

REQUIREMENT FOR THE DEGREE OF BACHELOR OF ARTS.

The satisfactory completion of thirty-eight courses of one term each, with three recitations a week (or their equivalent), is necessary to fulfill the requirements for the degree of Bachelor of Arts.

THE SCHOOL OF ENGINEERING.

ADMISSION.

Candidates for admission to the School of Engineering will present themselves for examination on Monday, June 12, 1899, in room No. 8, east wing of the University Building, at 9 o'clock a. m. A second examination will be held on Tuesday, September 26, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS

All candidates for admission are required to furnish testimonials of good moral character, and students from other institutions are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression.
Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*, Shakespeare's *Merchant of Venice*, Addison's Roger de Coverly papers from *The Spectator*, Goldsmith's *Vicar of Wakefield*, George Eliot's *Silas Marner*, Longfellow's *Evangeline*, and Emerson's essays on Friendship, Manners, Compensation, History, Character.
 - II. *Algebra*, including radicals and equations of the second degree.
 - III. *Elementary Plane and Solid Geometry*. Wells' or Wentworth's Geometry or an equivalent.
 - IV. *Modern Language*. Either French or German at the option of the candidate; facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.
- N. B.—In place of Requirement IV, advanced work in Mathematics, Physics, or Chemistry, equivalent to two courses in these subjects as given in the School of Engineering, will be accepted, provided the candidate is 18 years old and has satisfied

the instructor that he has done the work in the subject he presents. A student thus admitted will be excused from work in the subject for which he has been given credit, but he will be required to do an equivalent amount of work in some other subject acceptable to the Faculty.

- V. *History.* Of the United States and of England such as is found in any text-book on history intended for the use of preparatory schools.

N. B.—In place of the work in the History of England, an equivalent amount of work in the history of some other country, in Ancient History, or in General History will be accepted.

- VI. *Elementary Physics.* Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

- VII. *Drawing.* *a.* Free-hand drawing in outline from groups of simple objects. *b.* Simple free-hand lettering.

they consult freely on assigned topics. There is also a large assortment of drawings of the most interesting engineering and architectural structures at home and abroad. Many photographs and blue prints have been collected illustrating all the more common styles of bridges with their details.

The Testing Laboratory.—The facilities in the testing laboratory are very complete. A floor space of about 2,400 square feet is occupied with the following appliances: Two Riehle universal testing machines with a capacity of 100,000 lbs. and 20,000 lbs. respectively, a beam testing machine, with a capacity of 100,000 lbs. on a length of 24 feet; two beam testing machines with a capacity of 6,000 lbs. on a length of five feet with micrometer deflection measuring apparatus; a column testing machine with capacity of 1,000,000 lbs. on a length of 36 ft. or less; cement testing machines of the Fairbanks, the Riehle, and the Olsen types; a complete standard set of German briquet making and testing machines and scales, with pounding apparatus; an extensometer apparatus reading to ten thousandths of an inch; one eight-horse-power steam engine; one five-horse-power dynamo; one planer and one lathe for iron work; one wood planer, one band saw, and one cutting off circular saw for shaping timber specimens; two drying ovens and three sets of scales; a dry kiln with steam coil and exhaust fan for drying lumber; complete sets of bench and carpenter's tools, standard gauges, scales, etc.

APPLIANCES IN MECHANICAL ENGINEERING.

Drawings and photographs illustrating the best practice in all branches of mechanical engineering, including a number of drawings of the machinery of ships for the U. S. Navy, and examples of the best practice in the construction of locomotives, stationary engines, and machine tools are provided. Students have access to a small but modern and carefully selected technical library, and to a number of the best technical journals.

The laboratory contains a steam engine, a Westinghouse air compressor, a Bogart gas and gasoline engine, a Carpenter steam calorimeter, a pair of Crosby indicators, a planimeter, a tachometer, a Thompson coal calorimeter, a pyrometer, a complete set of apparatus for testing lubricants, a standard gas meter, a standard test gauge, a Prony brake, thermometers, revolution counters, and such tools as are necessary.

Students have access to the shops of the Manual Training School, in which they receive a training in the use and care of metal and wood working tools and machinery.

APPLIANCES IN ELECTRICAL ENGINEERING.

The Electrical Engineering Laboratory contains a high speed Buckeye Engine of twenty horse-power; two Gramme dynamos, the one being a series and the

other a shunt-wound machine; smaller motors of various types; voltmeters, amperemeters and galvanometers of various types and capacities; a Brackett cradle-ergometer, upon which one dynamo is mounted, and by which the power applied to it can be measured; a Wheatstone bridge; a Prony brake; a Siemens electro-dynamometer; a mercury column fifty feet in height, which is arranged for testing steam gauges and indicator springs at any temperature, and a compression air pump capable of working to twenty atmospheres.

The rooms are wired conveniently for practical measurements upon the electric plant, and for the measurement of candle power of lamps. The alternating current from the public mains of the Missouri Electric Light and Power Company is carried to the laboratory switchboard, and is thus available for experimental work.

LECTURE FOUNDATIONS.

A Lecture Endowment Fund, amounting to twenty-seven thousand dollars (\$27,000), was created in 1875 by one of the early friends of the University, Mr. William Henry Smith. It was given without any restrictions, except that the fund should be increased, if practicable, by accruing interest, to \$30,000, which has been accomplished, and that no part of the principal should be expended.

The beginning of a fund for the encouragement of

the study of American History has been made by a gift of \$15,000 by Mrs. Mary Hemenway, of Boston, Massachusetts.

Upon this foundation a *University Professorship of American History* has been established, and the chair was filled in 1884 by the appointment of Dr. John Fiske, of Cambridge, Mass.

LIBRARY AND READING ROOM.

Necessary books of reference are provided, and also a good selection of periodical literature. No attempt is made at present to gather a general library. During the year 1880 a gift of about three thousand volumes was received from the family of the late Joseph Coolidge, of Boston. The collection, known as the Coolidge Library, is especially rich in excellent editions of Italian and French authors, and is a very material addition to the usefulness of the library.

Through the liberality of a number of citizens of St. Louis an arrangement has been made by which the privilege of using the Mercantile Library has been extended, under prescribed conditions, to such members of the University as may be designated by the Chancellor.

Property valued at \$66,000 was given to the University by the late Mr. Stephen Ridgley, of St. Louis, upon the condition that the income shall accumulate until, in the judgment of the Board of Direct-

ors, the amount shall be sufficient to erect and maintain a fire-proof Library Building. The gift was thankfully accepted upon that condition.

GYMNASIUM.

A gymnasium for the use of the Undergraduate Department is supplied with all necessary apparatus. While encouraging systematic and wholesome exercise, the University does not wish to foster undue interest in the feats of athletes, and discourages exercises which involve personal risk to the performers. All class exercises are conducted by a professional instructor.

SCHOLARSHIPS.

One perpetual scholarship, founded by the payment of \$5,000 and entitling the holder to all the advantages of all the departments of the University forever, has been placed at the disposal of the Mercantile Library Association, with the recommendation "that when the applicants for scholarship are of equal merit, the preference shall be given to one for some mechanical pursuit."

One scholarship is also held by the St. Louis High School, which entitles the ranking student of the graduating class of each year to free admission to the Undergraduate Department, in accordance with a resolution of the Board of Directors when the College was organized.

One scholarship is also held by the School Board of Kansas City for the benefit of a graduate of the Kansas City High School. This scholarship entitles the holder (who is to be selected by the School Board) to free tuition in the College or the School of Engineering. Reports of the standing of the student will be made to said Board annually by the Dean.

A trust fund of \$30,000 has been accepted by the University from the WESTERN SANITARY COMMISSION, for the establishment of TWENTY FREE SCHOLARSHIPS in the Undergraduate Department, to be filled by children or descendants of Union soldiers who served in the late civil war. In default of such applicants, candidates will be appointed by the Chancellor of the University with the advice of the Faculty. Preference is given to those in straitened circumstances, and no student is accepted or continues who is not of good moral character, who does not sustain satisfactory examinations, or who fails to comply with the rules of the University.

From the same source a SUSTENTATION FUND of \$10,000 has been accepted, the income of which is expended in aid of students in straitened circumstances, giving preference always to the descendants of Union soldiers, as above.

EXAMINATIONS.

The examinations in the Undergraduate Department are frequent and rigid. No promotions to higher classes are made except upon conclusive evidence

that the antecedent subjects have been well mastered. Reports of the standing of individual students will be made by the Deans to parents or guardians, if such are requested.

DEGREES IN THE UNDERGRADUATE DEPARTMENT.

I. IN THE COLLEGE.

The degree of *Bachelor of Arts* is conferred upon the satisfactory completion of the requisite number of courses.

II. IN THE SCHOOL OF ENGINEERING.

1. On the satisfactory completion of four years' work the degree of *Bachelor of Science* is conferred.
2. The professional degrees of *Civil Engineer*, *Mechanical Engineer* and *Electrical Engineer* are conferred only after three or more years of actual and successful engineering practice, one year of which must have been spent in responsible charge of engineering work, and the presentation of an acceptable thesis; both the thesis and the experience to be such as to show an ability to design and execute engineering work.

The Bachelor degrees are in three grades indicated by the words *cum laude*, *magna cum laude* and *summa cum laude*, respectively.

Every member of the graduating class who has attained *ninety per cent.* of the maximum mark on the general scale for the four years may be recommended for a degree *summa cum laude*.

Every member of the graduating class (not recommended for the degree of *summa cum laude*) who has

attained *eighty-five per cent.* of the maximum mark on the general scale for the four years may be recommended for a degree *magna cum laude*.

Every member of the graduating class (not recommended for a degree of *summa* or *magna cum laude*) who has attained *eighty per cent.* on the general scale for the four years may be recommended for a degree *cum lauae*.

No student will be recommended for a degree who has not passed all his examinations successfully and handed in such projects or theses as may be required.

The diploma fee is three dollars, payable in advance.

ADVANCED DEGREES.

The degree of *Master of Arts*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Arts.

The degree of *Master of Science*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Science, of Civil Engineer, of Mechanical Engineer, of Electrical Engineer, of Engineer of Mines, or of Chemist.

The degree of *Doctor of Philosophy*, which is granted after not less than two years of residence and study (the two years of residence and study may include the year of preparation for the Master's degree),

is open to all who have received the degree of Master from this University.

The degrees of Master of Arts, Master of Science, and Doctor of Philosophy are open to graduates of other institutions who shall have satisfied the Committee on Advanced Degrees of their fitness.

Applications for candidacy for the degree of Master of Arts, Master of Science, or Doctor of Philosophy are referred to a committee of five members of the Faculty of the Undergraduate Department, annually appointed, known as the *Committee on Advanced Degrees*.

The Committee decides upon the admission of the candidate; determines the course of study which the candidate is to pursue; determines by examination, thesis, or both, whether a candidate is suitably prepared for the degree; and recommends the granting of the degree to the Faculty of the Undergraduate Department.

REQUIREMENTS FOR THE MASTER'S DEGREE.

- a. At least one year of residence and study.
- b. Every candidate must pass such written examinations as the Committee on Advanced Degrees may see fit to prescribe.
- c. In addition to the work specified in each case, every candidate shall present a satisfactory thesis, which must be submitted not later than May 1 of the year in which the degree is to be conferred.

REQUIREMENTS FOR THE DOCTOR'S DEGREE.

- a. Two years of residence and study.
- b. Every candidate must satisfy the Committee on Advanced Degrees that he has a reading knowledge of French and German.
- c. Every candidate shall present an acceptable thesis, which shall be the result of original investigation. This thesis must be presented not later than April 1 of the year in which the degree is to be conferred; and every candidate must furnish the Committee on Advanced Degrees with 200 copies of his thesis, after its acceptance, before he can be recommended for the degree.

DIPLOMA FEE.

The diploma fee is five dollars, payable in advance.

COMMITTEE ON ADVANCED DEGREES FOR 1898-99.

The following members of the Faculty constitute the Committee for 1898-99: Professors Snow (chairman), Nipher (secretary), Engler, Sanger and Heller.

TUITION.

Tuition in the Undergraduate Department is \$150 a year, payable semi-annually, in advance if required, and always before the middle of the term.

A matriculation fee of five dollars is charged to all who enter this Department, payable in advance.

BOARD AND LODGING.

Students living at a distance from the University have no difficulty in securing rooms and board at reasonable rates. The yearly expenses may range between the following estimates, according to taste and habits of economy:

Tuition	\$150 00	—	\$150 00
Board, lodging, and washing, 9 months..	200 00	to	300 00
Books and instruments	10 00	"	20 00
Incidentals	15 00	"	30 00
<hr/>			
Total for the year	\$375 00 to \$500 00		

Books and instruments may be obtained at cost from the *Co-operative Association*, organized and managed by the students of this Department.

May 1:

HENRY SHAW SCHOOL OF BOTANY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

HENRY SHAW SCHOOL OF BOTANY.

ESTABLISHED JUNE 8, 1885.

ADVISORY COMMITTEE.

THE CHANCELLOR OF THE UNIVERSITY, *ex-officio.*

WILLIAM G. FARLOW, M. D.

GEO. J. ENGELMANN, M. D.

GEORGE E. LEIGHTON.

WILLIAM L. HUSE.

INSTRUCTORS.

WILLIAM TRELEASE,

DIRECTOR AND
ENGELMANN PROFESSOR OF BOTANY.

WILLIAM H. RUSH,

GENERAL INSTRUCTOR.

HERMANN VON SCHRENK,
INSTRUCTOR IN CRYPTOGAMIC BOTANY.

ELLEN C. CLARK,
ASSISTANT AT THE MARY INSTITUTE.

GENERAL INFORMATION.

In June, 1885, Mr. Henry Shaw, of St. Louis, authorized the Chancellor of the University to place before the Board of Directors a plan of action for the establishment of a School of Botany, as follows:—

That he proposed, with the concurrence of the Directors, to endow a SCHOOL OF BOTANY as a department of Washington University, by donation of improved real estate, yielding over \$5,000 revenue, and to place it in such relation with the largely endowed Missouri Botanical Garden and Arboretum, as would practically secure their best uses, for scientific study and investigation, to the professor and students of the said School of Botany, in all time to come.

At the meeting of the Board of Directors held June 8, 1885, the following resolutions were, therefore, offered, in grateful acceptance of Mr. Shaw's proposal:—

1. That a School of Botany be established as a special department of Washington University, to be known as the Henry Shaw School of Botany.
2. That a professorship of Botany be therein established, to be known as the Engelmann Professorship.
3. That Professor Wm. Trelease, of the University of Wisconsin, be invited to fill the same; his duties to begin at the commencement of the next academic year, September 17.
4. That said School of Botany be placed under the special care and direction of an advisory committee, to consist of five members, of whom two shall be members of this Board, and two shall be selected outside of the Board, the Chancellor of the University being a member *ex officio*. }

This report was accepted and the resolutions unanimously adopted. The record of such action was then submitted to Mr. Shaw and approved by him.

On this foundation, the School of Botany was opened in the autumn of 1885. In his will, admitted to probate in 1889, Mr. Shaw further provided for the maintenance of the income of the School up to a certain limit, and took steps calculated to secure the proposed close co-operation between the School of Botany and the Botanical Garden.

The laboratory of the School of Botany is temporarily located at 1724 Washington avenue, and a small library, containing the usual laboratory manuals and class books, which is kept at the laboratory for reference, is added to as new books, needed for class material, appear. In addition to alcoholic and imbedded material, a small herbarium is being formed, which is intended to contain representatives of the local flora. Advanced students, some of whose work is done at the Garden, also have the privilege of consulting, under necessary restrictions, the excellent herbarium and library maintained there, and now comprising about 300,000 sheets of specimens, something over 30,000 books and pamphlets, and a large collection of wood veneers and sections; and no effort is spared to make the Garden equipment as complete as possible in any line of work taken up by competent investigators.

The instrumental equipment of the laboratory includes one microscope by Zeiss, with the necessary objectives, ranging from A. A. to 1-18 in. oil immersion, and accessories for spectroscopic studies and work with polarized light; twenty microscopes by Leitz, with the objectives needed for the best work (including five 1-12 in. oil immersion lenses, one 1-16 in. oil immersion, and one 1-20 in. oil immersion), polariscope, camera lucidas of several patterns, etc.; sixteen dissecting microscopes by Bausch and Lomb; two dissecting microscopes by Leitz, one of them provided with camera lucida; a projecting apparatus for delineating objects under a low power of enlargement; a simple outfit comprising all that is necessary for ordinary bacteriological investigation; and the apparatus needed for histological work and elementary physiological experimentation. Students are provided by the laboratory with all necessary instruments and supplies (excepting razors or other cutting instruments) without charge except for breakage or other injury and for slides and cover glasses used for permanent preparations; but when alcohol or other expensive substances are used in quantity, as in work on bacteria, a special charge may be made for material used.

The working year of the School of Botany is of the same extent as that of the Undergraduate Department of the University, and is similarly divided, except for

a few special teachers' classes corresponding to the usual school terms.

The work offered students is of two classes: undergraduate studies, including at present fifteen stated electives,—the equivalent of nearly three full years' work,—and post-graduate or special courses for advanced students, planned in each case to meet the needs of the student. For the convenience of students nearly all elementary instruction is given at the laboratory, near the other University buildings, where the principal instrumental equipment is kept, but the study of living plants, and advanced herbarium and library work, are provided for at the Garden. All courses capable of being so taught are given in the laboratory, and supplemented by lectures and quizzes by the teacher. The few lecture courses offered are illustrated wherever possible by specimens exhibiting the subject under consideration, and by wall charts and the stereopticon.

A list of the undergraduate electives is given above (p. 39), in the general information concerning the Undergraduate Department. Under the advice of the Dean of the College, and the professor of botany, students who wish to make a specialty of botany through their course may arrange to take all of these electives and to follow them by a piece of investigation on which a thesis is to be based; and regularly enrolled special students who are not candidates for a degree

may give the greater part of their time to botanical study, subject to such regulation as is prescribed by the Faculty.

Special classes for the benefit of teachers, and other persons not in attendance at the University, are formed from time to time, and such persons may be admitted to any of the regular electives on the payment of a tuition fee conformed to the general rates of the University, namely, \$15.00 for each full course (of three exercises per week during a term), and \$7.50 for each half course (of less than three exercises per week for the same length of time). Graduates of the University and of the Mary Institute are not subject to any charge for tuition.

Graduate students who are eligible under the rules of the Faculty to candidacy for higher degrees, if suitably prepared, may elect research work in botany as their principal study for such degrees.

Applications for the formation of special classes, and all correspondence concerning the School of Botany, should be addressed to

WILLIAM TRELEASE,
Shaw School of Botany,
St. Louis, Mo.

ST. LOUIS SCHOOL OF FINE ARTS.

(ART DEPARTMENT OF WASHINGTON UNIVERSITY.)

19th and Locust Streets.

CALENDAR 1898-99.

FIRST TERM, DAY SCHOOL, begins Monday, September 19, 1898.

FIRST TERM, DAY SCHOOL, ends Saturday, December 10th, 1898.

FIRST TERM, NIGHT SCHOOL, begins Monday, October 31st, 1898.

FIRST TERM, NIGHT SCHOOL, ends Saturday January 28, 1899.

SECOND TERM, DAY SCHOOL, begins Monday, December 12th, 1898.

SECOND TERM, DAY SCHOOL, ends Saturday, March 11th, 1899.

SECOND TERM, NIGHT SCHOOL, begins Monday, January 30th, 1899.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 22d, 1899.

THIRD TERM, DAY SCHOOL, begins Monday, March 13, 1899.

THIRD TERM, DAY SCHOOL, ends Saturday, June 3, 1899.

EXHIBITION OF STUDENTS' WORK, June 6th-8th, 1899.

1899-1900.

FIRST TERM, DAY SCHOOL, begins Monday, September 25th, 1899.

FIRST TERM, DAY SCHOOL, ends Saturday, December 16th, 1899.

FIRST TERM, NIGHT SCHOOL, begins Monday, November 6th, 1899.

FIRST TERM, NIGHT SCHOOL, ends Saturday, February 3rd, 1900.

SECOND TERM, DAY SCHOOL, begins Monday, December 18th, 1899.

SECOND TERM, DAY SCHOOL, ends Saturday, March 17th, 1900.

SECOND TERM, NIGHT SCHOOL, begins Monday, February 5th, 1900.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 28th, 1900.

THIRD TERM, DAY SCHOOL, begins Monday, March 19th, 1900.

THIRD TERM, DAY SCHOOL, ends Saturday, June 9th, 1900.

EXHIBITION OF STUDENTS' WORK, June 12th-14th, 1900.

ST. LOUIS SCHOOL OF FINE ARTS.

REORGANIZED MAY 22, 1879.

The establishment of an Art School upon a broad and permanent foundation has always been part of the plan of Washington University. For nearly twenty-five years Art instruction has been embodied in the course of study. In 1875, special students were admitted to the Drawing Department, and class and public lectures were given on Art History. The same year an evening school was opened.

On May 22, 1879, the Directors of the University adopted an ordinance establishing a Department of Art in Washington University, from which the following extracts are taken:—

“A Department of Art is hereby established as a special Department of Washington University, to be known as THE ST. LOUIS SCHOOL OF FINE ARTS.

“The objects of said Department shall be: Instruction in Fine Arts; the collection and exhibition of pictures, statuary, and other works of art, and of whatever else may be of artistic interest and appropriate for a Public Gallery or Art Museum; and, in general, the promotion by all proper means of æsthetic or artistic education.”

BOARD OF CONTROL.

ELLIS WAINWRIGHT, PRESIDENT.
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HARRISON I. DRUMMOND.
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EDWARD R. HOYT.
HALSEY C. IVES, DIRECTOR, *ex officio*.

OFFICERS AND INSTRUCTORS.

HALSEY C. IVES, DIRECTOR.
ROBERT P. BRINGHURST.
EDWARD M. CAMPBELL.
CHARLES PERCY DAVIS.
JUSTINA V. A. PHILLIPS, LIBRARIAN.
EDMUND H. WUERPEL.
ALICE M. MORE, SECRETARY.
W. H. PALMER.
CHARLES WARD RHODES.
CHARLES A. WINTER.
LAURANCE EWALD.

NOTE.—All communications in regard to the School
should be addressed: ST. LOUIS SCHOOL OF FINE
ARTS.

GENERAL INFORMATION.

There are three terms in the year.

Students will be admitted at any time, but not for less than one term, except by special arrangement with the Director.

The school furnishes instruction in Drawing, Modeling, Painting, Artistic Anatomy, Perspective, Composition, Architectural and Mechanical Drawing.

The rooms are open for the study of drawing, painting and modeling, every day during each term from 9 a. m. to 4 p. m. and for the study of drawing from the Antique and Life, mechanical drawing and modeling three evenings in the week, from November to May.

Students may enter any class upon submitting examples of work showing the necessary skill. Applicants for admission to the evening Life Class must submit a drawing of a full length figure from the Antique or Life.

Students who can pass the necessary examination may study Modern Languages, History and Literature in classes of the Undergraduate Department of the University.

The school is fully equipped with models, casts from the Antique, *et cetera*.

The class rooms are adjacent to the galleries of the Museum. The building erected during the past year was especially designed to meet the needs of the various classes of the school and, in its appointments, art students will find every convenience for study.

The artists connected with the school as teachers

have received their training in the Art Schools of Europe.

All finished work must be left in the school or if removed by special permission, must be returned before the close of the school year for final examination by the committee appointed for that purpose.

Instruction in all classes of the school is individual. Advancement of each student depends on the degree of proficiency only.

An admission fee of \$2.00 is charged each student on enrolling in the classes of the day school, and \$1.00 to each student enrolling in the night school.

TUITION FEES.

TUITION FEES are due and payable to the Treasurer of Washington University, in advance, on enrollment, and on the first of each term. For convenience, the Secretary of the school will receive the fee and transmit it to the Treasurer.

ENROLLMENT FEE—Each student pays this fee once \$ 2 00

The income from enrollment fees is used in library extension work. Students withdrawing before the end of the year in which the fee is paid may continue the use of the library to the close of the year.

RATES OF TUITION—Antique, Life and Portrait Classes, either or all classes, per term..... 25 00

RATES OF TUITION—Saturday Class, Antique or Sketch Class, per term	5 00
Students will be admitted to the Day School, per month, with the privilege of one or more classes per day, first month.....	12 50
Each following month during the year	10 00
EVENING LIFE CLASS — Drawing or Modeling, three times per week, for term of twelve weeks	7 50
EVENING Class—Antique or Sketching from Life, three times per week, for term of twelve weeks..	5 00
EVENING CLASS—Elementary, three times per week, for term of twelve weeks	5 00
EVENING CLASS — Architectural and Mechanical Drawing, three times per week, for term of twelve weeks	5 00
EVENING CLASS—Modeling, three times per week, for term of twelve weeks	5 00

PROGRAMME.

MORNING.

Elementary Model and Object Class, daily, from 9 to 12 o'clock.

Antique Class, daily, from 9 to 12 o'clock.

Life Class (model nude), daily (except Saturdays), from 9 to 12 o'clock.

AFTERNOON. (Except Saturdays.)

Modeling Class, daily, from 1 to 4 o'clock.

Painting Class (Still-life, Drapery, etc.), daily, from 1 to 4 o'clock.

Head Painting Class, daily, from 1 to 4 o'clock.

SATURDAY.

Elementary Class, from 9 to 12 o'clock.

Antique Class, from 9 to 12 o'clock.

Water Color Class, from 9 to 12 o'clock.

Sketch Class (models in costume), from 9 to 12 o'clock.

Modeling Class, from 9 to 12 o'clock.

SATURDAY JUVENILE CLASS.

Drawing from objects, from 9 to 12 o'clock.

Modeling, from 9 to 12 o'clock.

NIGHT.

Life Class (model nude), Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Portrait Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Elementary Class in Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Antique Class, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Mechanical Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Architectural Drawing, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Modeling, Monday, Tuesday and Thursday, from 7:30 to 9:30 o'clock.

Advance students are afforded opportunity for study from life—draped and nude models—forty hours per week.

COURSE OF INSTRUCTION.

The course of instruction is as follows:—

ELEMENTARY.

From the beginning the student is taught to draw from the object. Models are provided with simple contours such as casts from leaves, fruit, foliage, Greek vases, architectural forms, fragments of the human

figure, etc., and the student is required to make outline and shaded drawings from these until he has fully mastered the difficulties due to the form and position of the object. This method is carried through all grades of the school; no copying of any kind is permitted.

ANTIQUE.

In the Antique Class the methods in use are severe and require close observation combined with great patience and perseverance. All stump processes are discarded; all results are due to careful study and painstaking; no chance is allowed for "accidental effects." The education of the eye is considered of greater importance than the training of the hand, not only in simple line work and the study of superficial forms, but in the general, yet no less certain, laws which underlie and distinguish the work of every great master in sculpture or painting. Little attention is paid to pictorial finish, and in many cases where a tendency toward pictorial finish seems to interfere with the students' progress in acquiring a comprehensive method of drawing, it is rigorously discouraged.

LIFE.

Work in the Life Classes consists in drawing and painting from the living model, both draped and nude, and either from a whole or a portion of the figure, one class being entirely devoted to the study of the head.

More attention is given to drawing than to painting, and students who paint are required to draw a portion of the time. In all cases a careful study of the model and conscientious search for contours and construction, requiring continual use of the mind, are insisted upon. No effort is made to bring the students to a uniformity of method; except to the extent of instructing them to see forms as they really exist; beyond this each student is permitted to develop or follow a style of his own. Special attention is given to the importance of viewing the subject to be placed upon the paper as a whole, thus bringing the parts of the figure into proper subordination and avoiding the natural tendency to exaggerate the importance of details. Special emphasis is placed on the importance of self-reliance in the determination of the form of each portion of the figure, and of bestowing as conscientious care upon the modeling of the hand and foot as upon the expression of the face, with the purpose of training the eye to comprehend and the hand to reproduce precisely what is seen and not what may be known to exist from a general knowledge of the subject or from any preconceived ideas of whatever kind. This method is carried to the smallest details with the intention of compelling the student to rely entirely on the natural form which is before him.

MECHANICAL AND ARCHITECTURAL DRAWING.

Classes in these subjects are held only at night. Owing to the variety of knowledge and ability possessed by the student, the instruction is largely individual.

Mechanical drawing includes the following branches :

- I. Plane Geometrical Drawing, Orthographic Projection, Intersection of Solids and Development of Surfaces.
- II. Drawing of Machine Details from measurement.
- III. The making of Assembled Drawings.
- IV. Tracing.

The purpose of the instruction is to teach students how to make practical working drawings, and to read them with ease.

In the Architectural Drawing Class beginners are taught how to use their instruments, and to make neat and accurate line drawings. Instruction is given in the preparation of plans, elevations and working drawings for various kinds of buildings. Advanced students are taught Perspective Drawing, and the Drawing of ornamental forms for decorative purposes.

MODELING.

The work of modeling in the day class of the school is intended principally to supplement the work in drawing and painting, for the purpose of giving stu-

dents a more detailed knowledge of the form and structure of the models which they have studied in their work in drawing. In the night class the work is quite different. Most of the students are artisans who desire to acquire a knowledge of modeling for specific purposes, principally for use in exterior decoration and in architectural work. On account of this difference the work in the day class is of a more general character, and intended more to cultivate the mind, while that of the night class is necessarily special in character, and intended more particularly to give the hand skill in producing well-known forms.

LECTURES.

From time to time class and public lectures are given on subjects pertaining to art history and on other allied subjects, which it is thought may be for the benefit of the students. These lectures are arranged, not only for the purpose of instructing the student by the matter directly presented, but to awaken a desire for information on a variety of subjects, literary and historical as well as artistic, and to suggest a proper course of reading for the prosecution of any line of study which individual taste may prefer. Some are purely technical and deal with the various methods employed at different periods, while others are informal and conversational. All are intended to give the student the latest and best information on the sub-

jects treated, and wherever possible are illustrated either by models and objects or stereopticon views.

All lectures are given by specialists; the general subjects treated are history, literature, philosophy, anatomy, perspective, decorative design.

During the year 1897-98, there were given class and general lectures on the following subjects:—

The Parthenon—Prof. John Picard.

Paris—Mr. E. H. Wuerpel.

The Renaissance, Music and Painting; with Violin Obligato—Mr. Edward Remenyi.

Truth in Art as Exemplified by Musical Instruments
—Mr. Edward Remenyi.

Modern Painting and Sculpture in Germany, France
and America—Mr. Charles Ward Rhodes.

Munich—Mr. Charles Ward Rhodes.

Historical Development of Art (three lectures)—Prof.
H. C. Ives.

Perspective (fourteen lectures)—Mr. Charles Ward
Rhodes.

Anatomy (four lectures)—Mr. E. H. Wuerpel.

Museum Collections (three lectures)—Mr. E. H.
Wuerpel.

Composition (eighteen lectures)—Mr. E. H. Wuerpel.
(fifteen lectures)—Mr. Chas. Percy Da-
vis.

(five lectures)—Mr. Robt. P. Bringhurst.

Total, 68 lectures.

The reading room is open daily from 9 a. m. to 5 o'clock p. m. and on such evenings of the week as the work of the school may demand. The current art publications and monthly publications of current literature are on file.

It is the intention of the authorities of the school to add books of reference as rapidly as possible to those already acquired.

The Awards in the School of Fine Arts for the year 1897-98 were as follows:—

June 8, 1898.

Prof. Halsey. C. Ives,

Director St. Louis School of Fine Arts.

Dear Sir:—The Jury of Awards appointed to judge the work submitted in competition for honors for the year 1897-98 take pleasure in congratulating you and your fellow workers and the students upon the very high order of excellence which marks the exhibition. The judges found themselves seriously embarrassed in selecting the best because of this general superiority, and wished many times that the number of honors were greater.

The following are recommended:—

Antlque Class.

Mr. Thomas H. Magee, 1st, Silver Medal.

Miss Beatrice Benson, 2nd, Bronze Medal.

Miss Bettie Smith, 3rd, Honorable Mention.

Still Life Painting Class.

Miss Belle A. Mallin, 1st, Silver Medal.

Miss Katherine D. Cogswell, 2nd, Bronze Medal.

Miss Agnes Richmond, 3rd, Honorable Mention.

Portrait Class in Black and White.

Dr. David H. MacAdam, 1st, Silver Medal.

Mr. James H. Lowell, 2nd, Bronze Medal.

Mr. William J. Hurlbut, 3rd, Honorable Mention.

Portrait Class in Color.

Mr. George A. Harker, 1st, Silver Medal.

Miss Alice M. Beach, 2nd, Bronze Medal.

Miss Emilie M. Gross, 3rd, Honorable Mention.

Life Class in Black and White.

Miss Laura E. Menne, 1st, Silver Medal.

Mr. George A. Harker, 2nd, Bronze Medal.

Mr. James H. Lowell, 3rd, Honorable Mention.

Life Class in Color.

Miss Alice M. Beach, 1st, Silver Medal.

Mr. John O. Spurr, 2nd, Bronze Medal.

Miss Emilie M. Gross, 3rd, Honorable Mention.

Composition Class.

Miss Emilie M. Gross, 1st, Silver Medal.

Saturday Sketch Class, Color.

Mr. George A. Harker, 1st, Silver Medal.

Miss Alice M. Beach, 2nd, Bronze Medal.

Saturday Sketch Class, in Black and White.

Mr. David H. MacAdam, 1st, Book.

Mr. William J. Hurlbut, 2nd, Honorable Mention.

Modeling Life.

Miss Florence Sharman, 1st. Silver Medal.

Modeling Antique.

Mr. W. Berkmann, 1st. Honorable Mention.

The Wayman Crow Medal awarded to Mr. William J.

Hurlbut.

Respectfully,

Chairman of Jury.

THE ST. LOUIS MUSEUM OF FINE ARTS.

The Museum of Fine Arts has a valuable permanent collection of statuary, paintings, pottery, carvings, etc., which affords the public, as well as students, an indispensable aid to the study of art; and in order that opportunity may be given for studying the methods of the different schools of painting and the works of celebrated artists, arrangements have been made for a series of fine exhibitions of oil and water color paintings, architectural drawings and engravings.

Any one desiring to become a member of the Museum of Fine Arts may do so by the annual payment of \$10.00. This membership entitles him, with his family and non-resident guests, to the privilege of visiting the Museum at all times when open to the public, and to all lectures, receptions, and special exhibitions given under the auspices of the Board of Control.

SCHOOL OF FINE ARTS.

Students enrolled from date of issue of last catalogue,
January 1, 1898, to March 28, 1899.

FULL TIME STUDENTS.

NAME.	RESIDENCE.
Alford, Comfort	4114 Maryland av.
Barry, Jessie H	941 Hamilton av.
Barstow, Jessamine	Kirkwood, Mo.
Bay, Lillian	800 Clarkson pl.
Benson, Beatrice	West Plains, Mo.
Blackman, Barbara A	Bartmer pl.
Bollman, Adele	1115 Dillon st.
Butler, Mary Susan	3029 Westminster pl
Brokaw, Anna Clotilde	3200 Lucas av.
Brown, Judith	Kirkwood, Mo.
Brown, Nannie	Bosworth, Mo.
Brownlee, Isabel D	3518 Washington av.
Chamberlain, Mary A	6218 Wagner av.
Clark, Minna Towner	Edwardsville, Ill.
Cogswell, Katheryn Diggs	4211 Page av.
Cotton, Robert Leo	2922 Lucas av.
Crumb, Chas. P	5463 Maple av.
Dunn, Virginia C	4202 Pine st.
Elliot, Charlotte C	2635 Locust st.
Eno, Julia	3874 Washington av.
Fassett, Bonnie Leslie	St. Joseph, Mo.
Fitch, Evelyn	4943 Reber pl.

NAME.	RESIDENCE.
Franklin, Ethel C	Kirkwood, Mo.
Franklin, Laura I. T	Kirkwood, Mo.
Frisby, Emma W	4634 Wagoner pl.
Fullerton, Alice Verena	1724 Olive st.
Gehner, Cora Harriet	3630 W. Pine st.
Gottschalk, Max	4020 Iowa av.
Gray, Florence Isabel	1139 Walton av.
Gross, Herman W	Webster Groves, Mo.
Harris, Florence I	1719 Waverly pl.
Hazard, Grace	Kirkwood, Mo.
Heltzell, Ida G	3119 Franklin av.
Hirst, Sue	3643A McRee av.
Hodgkinson, Geo	Winchester, Ill.
Hofmann, Emma	3641 Cleveland av.
Houck, Tula Vivian	1742 Waverly pl.
Houston, Mayme	Kirkwood, Mo.
Hudgens, Gertie	6521 Michigan av.
Johnson, Jane	La Grange, Mo.
Kleet, L. Alex	1820 Biddle st.
Knight, Augusta	2123 Clifton av.
Lesser, Eva	3967 W. Pine st.
Lovell, Florence	3419A Bell av.
Lowell, Jas. H	Holton, Kan.
MacAdam, David H	Kirkwood, Mo.
Malin, Belle A	3524 Chestnut st.
Mansfield, Emily	4934 Berlin av.
Martyn, Marguerite E	1607 Compton av.
McKeen, Emma C	3749 Delmar av.
Menne, Laura Estelle	4387 W. Pine st.
Milles, Rachel Louise	2806 Caroline st.
Milligan, Laurence E	Jacksonville, Ill.
Mook, Emil G	458 E. 3rd st., Alton
Murphy, Mary Alice	532 N. 8th st., E. St. Louis, Ill.

NAME.	RESIDENCE.
Neustadt, Edith	4029A McPherson av
Nickerson, Edmonda A	Warrensburg, Mo.
Parker, Marion F	2327 Howard st.
Ramsey, Jane M	5475 Cabanne pl.
Richinond, Agnes M	1727 California av.
Robards, Mabel	Springfield, Mo.
Sander, Herman	1620 Franklin av.
Sayers, Frank C	2129 Clark av.
Schnaider, Stella F	1423 Hickory st.
Sharman, Florence Marlon	2124 S. Compton av.
Sidebotham, Edith	Wellston, Mo.
Steinbrugge, Harry	Hill Side, P. O., Mo.
Tidball, Edna Austin	Fort Worth, Tex.
Walger, Frances	719 N. Spring av.
Warren, Fred D	Rich Hill, Mo.
Willard, Modena	3333 Washington av.
Wilson, Lucille Logan	Collinsville, Ill.
Wilson, James	Kippard, Mo.
Wise, Amelia A	3439 Lucas av.
Young, William Mark	Upper Alton, Ill.
Students working full time	75
Students working part time	90
Students working in night classes	146
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Total number enrolled	311

ST. LOUIS LAW SCHOOL.

(LAW DEPARTMENT WASHINGTON UNIVERSITY.)

CALENDAR 1898-99.

LAW SCHOOL, opens Thursday, September 22, 1898.

HOLIDAY, THANKSGIVING DAY, Thursday, November 24, 1898.

VACATION, December 23, 1898, to January 2, 1899.

HOLIDAY, WASHINGTON'S BIRTHDAY, Wednesday, February 22, 1899.

UNIVERSITY HOLIDAY, Friday, May 12, 1899.

COMMENCEMENT, Thursday evening, June 15, 1899.

VACATION, from June 15 to Thursday, September 28, 1899.

EXAMINATIONS FOR ENTRANCE TO SENIOR CLASS, Tuesday, September 26, 1899.

LAW SCHOOL opens Thursday, September 28, 1899.

HOLIDAY, THANKSGIVING DAY, Thursday, November 23, 1899.

VACATION, from December 23, 1899, to January 1, 1900, inclusive.

LAW SCHOOL.

FACULTY.

**WINFIELD S. CHAPLIN, LL. D.,
CHANCELLOR OF WASHINGTON UNIVERSITY.**

**WILLIAM S. CURTIS, LL. B.,
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PROFESSOR, REAL PROPERTY LAW AND EQUITY.**

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PROFESSOR, LAW OF CONTRACTS AND COMMERCIAL LAW.**

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LECTURER, CORPORATIONS.**

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LECTURER, CRIMINAL LAW.**

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LECTURER, CONSTITUTIONAL LAW.**

ISAAC H. LIONBERGER, A. M.,
LECTURER, STATUTES OF LIMITATIONS AND FRAUDS.

LEE SALE, LL. B.,
LECTURER, PARTNERSHIP.

PAUL F. COSTE, LL. B.,
LECTURER, AGENCY.

JACOB KLEIN, LL. B., (Judge of St. Louis Circuit Court,)
LECTURER, ADVANCED CLASS.

C. O. BISHOP, LL. B.,
LECTURER, CRIMINAL LAW.

EDWARD S. ROBERT, LL. B.,
LECTURER, EVIDENCE.

JAMES P. MAGINN, LL. B.,
LECTURER, ADMINISTRATION.

EBEN C. RICHARDS, LL. B.,
LECTURER, DAMAGES.

ADVISORY AND EXAMINING BOARD.

DAVID J. BREWER, Justice of United States Supreme Court.
LEROY B. VALLIANT, Justice of the Supreme Court of Missouri.
WARWICK HOUGH, late Justice of the Supreme Court of Missouri.
SHEPARD BARCLAY, late Justice of the Supreme Court of Missouri.
ELMER B. ADAMS, United States District Judge.
SAMUEL TREAT, LL. D., United States District Judge (retired).
HENRY S. PRIEST, late United States District Judge.
WILLIAM H. BIGGS, Judge of St. Louis Court of Appeals.
HENRY W. BOND, Judge of St. Louis Court of Appeals.
R. A. BAKEWELL, late Judge of St. Louis Court of Appeals.
SEYMOUR D. THOMPSON, late Judge of St. Louis Court of Appeals.
JACOB KLEIN, Judge of St. Louis Circuit Court.
JAMES E. WITHROW, Judge of St. Louis Circuit Court.
DANIEL D. FISHER, Judge of St. Louis Circuit Court.
HORATIO D. WOOD, Judge of St. Louis Circuit Court.
DANIEL DILLON, late Judge of St. Louis Circuit Court.
WILBUR F. BOYLE, late Judge of St. Louis Circuit Court.
GEORGE W. LUBKE, late Judge of St. Louis Circuit Court.
JAMES A. SEDDON, late Judge of St. Louis Circuit Court.

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EDW. CUNNINGHAM, JR.,	WELLS H. BLODGETT,
GEORGE H. SHIELDS,	E. T. ALLEN,
JOHN P. ELLIS,	JOHN F. LEE,
CHAS. CLAFLIN ALLEN,	JOHN D. DAVIS,
JOHN M. HOLMES,	JAMES L. BLAIR,
HENRY T. KENT,	WILLIAM B. HOMER,
JAMES P. MAGINN,	FRED'K W. LEHMANN,
LEVERETT BELL,	THOMAS K. SKINKER,
EDWARD T. FARISH,	ROBERT F. WALKER,
EVERETT W. PATTISON,	WALTER D. COLES,
JOHN E. McKEIGHAN,	WALTER B. DOUGLASS,
SILAS B. JONES,	JAMES HAGERMAN,
TRUMAN A. POST,	JESSE A. McDONALD,
HUGO MUENCH,	Of the St. Louis Bar.

COMMITTEES OF EXAMINATION.

FOR THE YEAR 1898.

— — —

For the Examination of Candidates for Graduation.

SHEPARD BARCLAY,

EDW. CUNNINGHAM, JR.,

HENRY T. KENT,

WALTER D. COLES,

WALTER B. DOUGLASS,

JAMES HAGERMAN,

JESSE A. McDONALD,

of the St. Louis Bar.

For the Award of a Prize of Fifty Dollars for the best Graduation Thesis.

R. GRAHAM FROST,

JULIUS C. HAINER,

THOMAS G. RUTLEDGE.

of the St. Louis Bar.

HONORS, 1898.

PRIZE ESSAYIST,

HENRY A. HAMILTON.

The Juniors who passed all the Junior examinations with an average grade of eighty per cent or over, and are therefore entitled to enter the Senior class *cum laude* are:

WILLIAM T. JONES, Humphreys, Mo., 88.82.

JAMES H. BRYSON, St. Louis, 88.65.

JACOB K. HIRSCH, Vicksburg, Miss., 87.39.

EDWARD D'ARCY, St. Louis, 86.75.

TRESCOTT F. CHAPLIN, St. Louis, 85.77.

LOUIS A. DAMMERT, St. Louis, 85.05.

J. PAUL CAYCE, Farmington, Mo., 84.96.

ANTHONY A. O'HALLARON, St. Louis, 84.43.

JOHN F. MOSER, Hastings, Minn., 83.75.

JAMES E. DAME, Princeton, Ind., 83.56.

CLARENCE T. KASE, Chillicothe, Mo., 83.30.

PAUL DILLON, St. Louis, 83.26.

MAURICE R. PHILLIP, Mexico, Mo., 82.62.

THEODORIC R. BLAND, Lebanon, Mo., 82.47.

JAMES D. DOCKERY, St. Louis, 81.74.

HENRY H. FURTH, St. Louis, 81.71.

CHARLES F. STUART, Walnut, Ia., 81.13.

ALFRED W. KNOTTS, Lucas, Ia., 80.78.

SAMUEL M. CARTER, Patterson, Mo., 80.72.

WILLIAM H. SCHROEDER, St. Louis, 80.10.

ADDRESS.

ADVANCED CLASS.

Douslass, John H., Jr. (LL. B., 1898,
Washington University) 16 Vandeventer pl.
Grover, Hamilton (LL. B., 1896, Wash-
ington University) 417 Pine st.
Hall, Claud D. (LL. B., 1898, Wash-
ington University) 516 Union Trust bldg.
Haberman, Phillip W. (LL. B., 1898,
Washington University) 415 Holland bldg.
Horton, Benj. J. (LL. B., 1896, Wash-
ington University) 728 Rialto bldg.

SENIOR CLASS.

CITY RESIDENCE.

Babbitt, Byron Fenner, St. Louis.... 3638 Pine st.
Barker, Horace Holt, St. Louis 2732 Pine st.
Bland, Theodoric Richard (A. B., 1897,
Christian Brothers' College), Leban-
on, Mo 4043 Page av.
Boemler, Henry William, St. Louis... 4051 McPherson Av.
Bradley, George Edwin, St. Louis.... 3934 Washington av.
Brandenburger, William A., St. Louis. 2348 Hickory st.
Bryson, James Harper (Ph. B., 1897,
Yale University), St. Louis..... 3833 Pine st.
Buder, Oscar Edward, St. Louis 2023 Park av.
Carter, John Paul (A. B., 1896, McKen-
dree College), Nashville, Ill
Carter, Samuel Marlon (B. L., 1896,
Westminster College), Patterson)Mo. 5524 Maple av.
Cave, Rhodes Estil, St. Louis..... 3928 Bell st.

CITY RESIDENCE.

Cayce, Julian Paul (A. B., 1896, West-
minster College), Farmington, Mo.. 3107 Morgan st.
 Chaplin, Tresscott Fox (M. A., 1897,
University of Chicago), St. Louis....3636 Pine st.
 Clark, W. Christy, Montgomery City,
Mo 1714 Locust st.
 Dame, James Ebenezer (A. B., 1895,
Wabash College), Princeton, Ind....4730 Nebraska av.
 Dammert, Louis A., St. Louis..... 4166 Cleveland av.
 D'Arcy, Edward, St. Louis 5884 Bartmer pl.
 Dickson, Joseph, Jr., St. Louis 3513 Morgan st.
 Dillon, Paul (A. M., 1897, Georgetown
University), St. Louis 4389 Pine st.
 Dockery, James D., St. Louis 3875 Delmar av.
 England, John Calhoun, St. Louis....5825 Von Versen av.
 Fenn, Bertrand Frederick, St. Louis..2646 Randolph st.
 Franck, Charles Hugo, St. Louis..... 2124 Oregon av.
 Furth, Henry H., St. Louis..... 5079 Delmar av.
 Gladney, Albert Caldwell, Auburn,
Mo 2649 Washington av.
 Guels, Walter C., St. Louis 3336 Caroline st.
 Hennings, Thomas C., St. Louis 3855 Windsor pl.
 Hirsch, Jacob Klein, Vicksburg, Miss..2928 Pine st.
 Hockdoerfer, Anthony, St. Louis....305 Sidney st.
 Hollmann, Frederick George, St.
Louis 4159 Greer av.
 Hoolan, Thomas Joseph, St. Louis....4542 Laclede av.
 Hopkins, Willard Thomas, Fort
Branch, Ind 2938 Locust st.
 Jones, William Thomas (B. L., 1896,
Mo. State University), Humphreys,
Mo 1333 Washington av.
 Kase, Clarence Theodore, Chillicothe,
Mo 1333 Washington av.

CITY RESIDENCE.

- Kelly, John J., St. Louis 3535 Page av.
Knotts, A. W., Lucas, Ia..... 3730 Cook av.
Kuehl, F. William, St. Louis 2825 S. 18th st.
Lee, Edwin Waterman (A. B., 1897,
Williams College), St. Louis 3114 Washington av.
Lord, John King, Jr. (A. B., 1895,
Dartmouth College), St. Louis 3529 Bell av.
Menown, John, St. Louis 3510 Easton av.
Methudy, Adolph Edward, St. Louis.. 1800 Waverly pl.
Moser, John Freeman, Hastings,
Minn 2307 Locust st.
Muth, John B., St. Louis 928 Manchester av.
Nicholson, Frank Gilmer, Gonzales,
Tex 2900 Washington av.
Nowlin, Samuel S. (A. B., 1897, Will-
iam Jewell College), Montgomery
City, Mo..... 1714 Locust st.
O'Hallaron, Anthony A., St. Louis.... 1811 Ohio av.
O'Neill, David Nicholson, St. Louis.... 4470 Westminster pl.
Phillip, Maurice Randal, Mexico, Mo. 3038 Bell av.
Plaisted, Harold Mason (M. E., 1883,
Stevens Inst. Tech), St. Louis..... 2206 N. 2nd st.
Rhodes, Arthur M., St. Louis 4414 Washington av.
Rudolph, Edward E., St. Louis..... 4308 Linton av.
Safford, George, St. Louis.....
Scheve, Louis J., Mascoutah, Ill..... 2025 Rutger st.
Schroeder, William Henry, St. Louis.. 2856 Russell av.
Smith, Don Carlos, Springfield, Mo... 1431 Locust st.
Snedcker, Isaac D., Jerseyville, Ill... 3303 Pine st.
Sprague, Harry E., St. Louis..... 3956 Delmar av.
Stone, J. Vinell, Johnson Co., Mo..... 2706 Dayton st.
Stuart, Charles F. (A. B., 1897,
Creighton University), Walnut, Ia.. 3127 Chestnut st.

CITY RESIDENCE.

Voyles, David William, Jr., St. Louis.. 3119 Morgan st.

Wilfley, Xenophon Pierce (A. M., 1894,

Central College), St. Louis 3960 Lindell bl.

JUNIOR CLASS.

Allen, William Hughes (A. B., 1895,

Washington University), St. Louis.. 3907 Castleman av.

Arkebauer, Bruno George, Mount Ol-

ive, Ill 4337A Finney av.

Barnes, Gerry Hoyt, St. Louis 3320 Morgan st.

Bernero, Emanuel Charles (A. B.,

1898, Christian Brothers' College),

St. Louis 4460 Lindell bl.

Bierer, Frederick Griffith, Anna, Ill.. 2631 Washington av.

Birge, James Patrick, St. Louis..... 2949 Euclid av.

Blake, John Sheer, St. Louis 4413A Page av.

Blodgett, Henry W., St. Louis 3108 Pine st.

Boehmen, Lotta, St. Louis 1643 Texas av.

Boehmen, Louis L., St. Louis..... 1643 Texas av.

Boone, Alfred Francis, Lawson, Mo.. 4060 W. Belle pl.

Bozarth, Carroll La Grange, Mo.

Bradshaw, Ernest William, Edwards-

ville, Ill 116 St. Andrews av.

Brenner, H. C., St. Louis 4370 St. Louis av.

Carson, Zenas Keers Sparta, Ill.

Chipley, Russell Allen Old Orchard, Mo.

Clifford, James Edward (Ph. B., 1896,

Illinois College), Jacksonville, Ill.. 2826 Locust st.

Clough, Samuel, Jr., Wyaconda, Mo.. 1424 Locust st.

Cornwell, Frederick Leander, St.

Louis 4304 Washington bl.

Dalton, Warren R. (A. B., 1890, Hia-

wassee College), Wentzville, Mo....4524 Page av.

CITY RESIDENCE.

Daniels, Olin James, St. Louis.....	4179 W. Belle pl.
Davis, Walter Naylor, St. Louis	
Desberger, Joseph (A. M., 1894, Chris-	
tian Brothers' College), St. Louis... 2351 Lafayette av.	
Dougherty, Edward J., St. Louis..... 1245 Goodfellow av.	
Doyle, J. Harrison, St. Louis 3107 Washington av.	
Fechte, John L Venice, Ill.	
Fisher, John J., St. Louis 4931 Page.	
Gatson, John Stuart (A. B., 1892,	
Westminster College), Vandalia,	
Mo 2311 Locust st.	
Haeussler, Harry Herman, St. Louis. 3117 Russell av.	
Hall, Fred Silvey (A. B., 1898, Univer-	
sity of Illinois), Arcola, Ill 2938 Locust st.	
Hannon, John William, St. Louis.... 3828 Cook av.	
Harding, Frederick Benjamin (A. B.,	
1894, McKendree College), E. St.	
Louis, Ill	
Hausman, Albert Excelsior, St. Louis. 1307 N. Broadway.	
Hawthorne, Donald K., Jonesboro,	
Ark 4380 Laclede av.	
Heath, Fred W., Montrose, Col..... 1907 Cora pl.	
Hilton, Warren (A. B., 1895, Washing-	
ton University), St. Louis 2335 Park av.	
Hoxie, Robert Sarle (Ph. B., 1898, Un-	
ion College), Cambridge, N. Y..... 3932 W. Belle pl.	
Huff, Claude Edmund, St. Louis 2938A Madison st.	
Janis, Paul V Ferguson, Mo.	
Jeffries, Jerry La Grange, Mo.	
Johnson, Harry Brigham, St. Louis... 2729 Chestnut st.	
Kenna, Ernest M., St. Louis 3956 W. Belle pl.	
Koenig, Eugene, St. Louis 2945 Milton av.	
Lally, John, St. Louis 4114 Cook av.	

CITY RESIDENCE.

Leonard, Harry W	Alton, Ill.
Leonard, Loyal Lovejoy (B. S., 1896, Trinity College), St. Louis	4348 Olive st.
Lindas, Benjamin Franklin, St. Louis.	1801 Coleman st.
Martin, William McChesney (A. B., 1895, Washington and Lee Universi- ty)	3015 W. Pine bl.
McKittrick, Samuel Walker	Edwardsville, Ill.
Medsker, Myron Milton, St. Louis.....	4221 Finney av.
Monroe, George Silas, St. Louis	3425 Clark av.
Monteith, Edward Mason, Newport, Ark	3124 Shenandoah st.
O'Hallaron, Joseph William, St. Louis.	1811 Ohio av.
Owen, Nelson A., St. Louis	4514 St. Louis av.
Pape, Fanny, St. Louis	2645 Washington av.
Parker, Bert, Clayton, Ill	2648 Washington av.
Phillips, Murray, Jr. (A. B., 1898, Mo. State University), New Madrid, Mo.	1825 Belleglade av.
Putnam, Eugene Valentine, St. Louis.	3306 S. Broadway.
Riley, Ambrose Joseph (A. M., 1898, Georgetown University), St. Louis..	1501 S. Grand av.
Ripley, George Minot (A. B., 1898, Yale University), St. Louis	
Rollman, Edmund Augustus, St. Louis	2609 Louisiana av.
Roudebush, Alfred Holt (A. B., 1891, University of Mississippi), St. Louis.	5858 Cates av.
Schnaider, Walter Joseph (A. B., 1898, Christian Brothers' College), St. Louis	1423 Hickory st.
Schnake, Robert A., St. Louis	2943 Easton av.
Schnepp, Emerson E. (Ph. B., 1895, De Pauw University), Greenville, Ill	2938 Locust st.

CITY RESIDENCE.

Schuchman, Alois, St. Louis	1525 Missouri av.
Scullin, William Richard, St. Louis..	3142 Locust st.
Shanks, Mack R., Marshfield, Mo....	2925 Olive st.
Smith, James, St. Louis	511 N. 15th st.
Smith, James Walter (M. D., 1890, Mo. Medical College), St. Louis....	2301 Washington av.
Staed, Mark Aloysius (A. M., 1898, Georgetown University), St. Louis..	3532 Page av.
Starke, LeRoy Bruce, Butler, Mo....	1381 Burd av.
Sterling, Frederic Augustine (A. B. 1898, Harvard University), St. Louis.	22 Westmoreland pl.
Sturgeon, Lockwood, St. Louis	1410 E. Grand av.
Van Slyke, James Rogers (B. L., 1896, Carleton College), Hastings, Minn..	2307 Locust st.
White, Richardson Douglass (A. B., 1893, Hampton Sidney College), St. Louis	3309 Morgan st.
Williams, Tyrrell (A. B., 1898, Prince- ton University), St. Louis	3945 Delmar av.
Winton, Paul, Centralia, Ill.....	1714 Locust st.
Wise, Francis Ambrose (A. B., 1896, St. Louis University), St. Louis	4621 Westminster pl.
Wittler, William Stephen (A. B., 1898, Washington University), St. Louis..	1134 Rutger st.
Young, Jesse A., St. Louis	4553 Rutger st.
Advanced Class	5
Senior Class	61
Junior Class	81
Total	147

HISTORICAL AND DESCRIPTIVE.

The Law School was founded in the year 1867 by the united efforts and counsels of the Directors of Washington University and of members of the profession actually in practice or then on the bench in the city of St. Louis. Feeling the importance of more thorough education in the Law than is usually required as a condition for admittance to the bar, they resolved to found a school which should give the best and most complete course of legal study possible within two years, and should be so constructed as to make its diploma an indisputable proof of the attainment of a high and uniform standard, without reference to numbers or to the support of the school from tuition fees. With that end in view the organization was adopted which has ever since been maintained. The University adopted the school as one of its departments, appointed the Dean and Faculty, and has always provided for its maintenance and has granted its degrees to the graduates. But the oversight of the course of study and the examination of candidates for such degrees were committed to an Advisory and Examining Board, composed of Judges of Federal and State Courts and members of the St. Louis Bar, distinguished for their talents and general and legal erudi-

dition, by whose committees those examinations are always conducted, and whose award is conclusive. These committees prepare the questions upon each topic, and pass upon the candidates' answers, under a system which secures the absolute impartiality of the result; the papers being distinguished by numbers only, and the name of the candidate represented by each number being unknown to the examiner. The papers of a candidate must reach the fixed standard of merit required by the committee or he will fail to pass, without even his name being known to them. Those who reach that standard are recommended to the University Directors for the degree of Bachelor of Laws (which is by law an admission to the bar.)

In consequence of this organization the school is known alike as the Law Department of Washington University, and as the St. Louis Law School. First opened to students September 16, 1867, it has now been in successful and unbroken operation for thirty-one years. In the city of St. Louis, during nine months in the year, besides the ordinary municipal and inferior courts, there are in almost uninterrupted session the Appellate, Circuit and District Courts of the United States, taking cognizance of questions in Admiralty and Revenue Law, as well as the causes at Common Law and Equity; also the Circuit and Criminal Courts of the State, and the St. Louis Court of Appeals—in one or other of which are constantly il-

lustrated the learning and practice of every department of American jurisprudence.

ENDOWMENT AND EDIFICE.

To insure the perpetual maintenance of its course, by the generous public spirit of a few friends, an endowment now amounting to *seventy-seven thousand dollars*, has been given, and invested in good securities in the name of Washington University, in trust for the perpetual support of the Law Department; the interest of such fund to be used for that purpose. It is hoped that this fund will be enlarged by other gifts.

The Directors of Washington University have formally dedicated to the use of the Law Department, rent free forever, the building now occupied by the Law School. This is a large and commodious building of three stories, No. 1417 Locust St., standing upon its own grounds, with a frontage of *one hundred feet* upon Lucas Place, the most convenient location in the city for such an institution. All the lecture and recitation rooms of the various classes, the libraries, Dean's office, society rooms, etc., are concentrated in this building, and the best accommodations for students may be found in the part of the city surrounding it. The principal library room is 58 by 60 feet in size and is open every day and evening for the use of students. The Library now contains more than 8,000 bound volumes. It *belongs to the school* and is de-

voted exclusively to the use of the students. By the courtesy of the Law Library Association they have also access on Saturdays to the Bar Library at the Court House, containing a very complete collection of American, British, Scotch, Irish, and Colonial Reports and treatises.

ADMISSION.

Applicants for admission to the school will be expected to furnish satisfactory evidence of good character and of at least a good English education. The diploma of any reputable college, academy or high school will be received as evidence of the latter; or the applicant may pass an examination to test his ability to read law-books intelligently.

No fixed rule as to the age of applicants for admission is enforced, but the Faculty reserve the right to reject any student not old enough to begin the study of law with advantage; and no student will receive the degree of Bachelor of Laws before the completion of his twenty-first year.

In the case of candidates for the Senior Class who have previously been members of the Junior Class, the examinations of that year will suffice, if creditably passed; and those who failed to pass, may, upon further study, apply again for examination in September, provided their record is not too unsatisfactory.

The regular examinations for this purpose will begin on Tuesday, September 26th, 1899, at 9 a. m., at the Law School, 1417 Locust Street.

New applicants for admission as Seniors will be examined at the same time, and upon the following subjects:—Commercial Paper, Sales, Bailments, Agency, Torts, Criminal Law, and Common Law or Code Pleading.

Admission to the Junior Class may be held at any time during the year; to the Senior Class, after the examination in September, it will be granted only upon special examination, at a time fixed by the Dean upon application, not later than the first week of school after the Christmas holidays; and no person will be admitted a member of the Senior Class as a candidate for a degree after that time; nor at any time upon any certificate of attainments, or previous study or attendance elsewhere.

But the privileges of the school will not be confined to those who are candidates for a degree, or wish to complete the entire course. Members of the bar of any State, who wish to study particular branches of law, will be admitted at any time for that purpose; and so also will students who can take but a partial course of study; or those who take the entire course without seeking a degree. The last mentioned class will be expected to pay full tuition; to the others reduction will be made according to the circumstances of each case, but

not exceeding one-half the regular tuition fee for each year. Any person coming within either of the foregoing classes, and possessing the general qualifications mentioned above, may attend the lectures of either class upon being enrolled in such class, and engaging to comply with the current regulations of the Law School. Such enrollment will entitle him to the privileges of the Library, and to attend all lectures and other exercises in both classes but not to be examined for graduation, nor to compete for a prize essay or degree.

COURSE OF STUDY.

The course for the degree of LL.B. may still, as heretofore, be completed in two annual terms, each of which (excluding the recess of about ten days at Christmas) occupies more than eight months in continuous study, beginning on the fourth Thursday of September of each year. The lectures are given at 8:45 to 9:45 a. m., and at 5 to 6 p. m., with some additional lectures to the Junior class at 4 p. m.; and Moot Court is held Fridays, at 7:30 p. m.

JUNIOR CLASS.

ELEMENTARY LAW. *Robinson & Blackstone.* Forty lectures. Curtis.

CONTRACTS. *Lawson.*

BILLS AND NOTES. *Tiedeman.*} Sixty-two lectures. Thayer.

TORTS. *Cooley.*

NEGLIGENCE. *Whittaker's Smith.*} Sixty-two Lectures. Bryan

SALES.	<i>Benjamin.</i>	 }	Sixty-two lectures.	Eliot.
BAILMENTS.	<i>Hale.</i>			
AGENCY.	<i>Mechem.</i>	Twenty lectures.	Coste.	
CRIMINAL LAW.	Twenty Lectures.	Bishop.	Johnson.	
PLEADING.	<i>Common Law.</i>	 }	<i>McKelvey.</i>	Forty Lectures.
	<i>Code.</i>		<i>Bryant.</i>	Curtis.
DAMAGES.	<i>Sedgwick.</i>	Fifteen lectures.	Richards.	

SENIOR CLASS.

REAL PROPERTY.	<i>Tiedeman.</i>	Fifty Lectures.	Rombauer.
CORPORATIONS.	<i>Taylor.</i>	Thirty-one lectures.	Nagel.
DOMESTIC RELATIONS.	<i>Schouler.</i>	Thirty lectures.	Curtis.
EVIDENCE.	<i>Greenleaf.</i>	Thirty Lectures.	Robert.
STATUTES OF LIMITATIONS AND FRAUDS.	Ten lectures.	Lionberger.	
ADMINISTRATION.	<i>Woerner.</i>	Twenty lectures.	Maginn.
CONSTITUTIONAL LAW.	<i>Black.</i>	Fifteen lectures.	Judson.
JURISDICTION OF FEDERAL COURTS.	Ten lectures.	Thayer.	
INTERNATIONAL LAW.	Fifteen lectures.	Finkelnburg.	
PARTNERSHIP.	<i>Parsons.</i>	Fifteen lectures.	Sale.
EQUITY.	<i>Bisham.</i>	Thirty lectures.	Rombauer.
HISTORY OF LAW.	Thirty lectures.	Curtis.	
MOOT COURT.	Once a week for both classes.		

The above courses are subject to slight changes from year to year.

ADVANCED CLASS.

An Advanced Course, on the law of Extraordinary Remedies, open to all graduates of this school and to members of the bar, is conducted during the school year, by Hon. Jacob Klein, Judge of the St. Louis Circuit Court. Tuition, twenty dollars.

MOOT-COURT.

A Moot-Court is held weekly throughout seven months of the year. It is conducted, as nearly as possible, with the forms of an ordinary court of justice, and students are expected to draw pleadings in the cases assigned to them, and to conduct them through all the stages of a legal or equitable suit before trying the issue in the Moot-Court. Members of the Senior Class may be appointed to sit as Associate Justices, and required to write opinions. The cases will be selected to illustrate the subjects studied by the classes and will be made, so far as possible, means of instruction, not only in practice, but in the doctrines of the law. Both classes will be assigned to argue cases in these courts. The Moot-Court Record is a weekly published by the School, containing the Statements of Facts, Briefs and Opinions.

Opportunity will also be given for the organization of Club Courts among the students, with every faculty for practice in the preparation and argument of cases, and for appeals from these to the Moot-Court, if desired.

GRADUATION.

Applicants for the degree of LL. B. must have been members of the Senior Class for the required time, and must have attended with the prescribed regularity. They will deliver to the Dean on or before the fifteenth

day of May an original thesis upon some legal subject approved by the Faculty. The subject of the thesis for the year 1898 was : "The Rights and Remedies of Minority Stockholders."

They must pass the examination prescribed by the Advisory and Examining Board, and conducted by a committee of that Board. This examination will be in writing, upon questions prescribed by the Committee, and answered under the supervision of the Faculty, without the use of books or any other assistance. It usually occupies an entire week, and is held early in June. As the degree of LL.B. conferred by this University entitles the holder to admission to the bar, it will not be granted except upon the most satisfactory evidence of actual proficiency, or to any person who will not have attained the age of twenty-one years on or before the first of October following, at the latest.

By the Revised Statutes of Missouri of 1889, section 624 (Vol. I, p. 237), all who have completed this course and taken this degree are entitled to practice law in this State without further examination, upon taking the oath prescribed in the constitution and laws (section 608, and Const., Art. XIV., sec 6).

The above examination is upon all the subjects of the two years' course and is in addition to the Faculty examinations held upon the individual subjects during the two years.

FEES AND EXPENSES.

The annual fee for attendance in either class is \$80, payable in advance. There are no extra charges of any kind, and the members of either class are free to attend all lectures and exercises of both; but no student can at the same time be a regular member of more than one class. No reduction will be made from the term fee, nor any part of it returned for absence from any cause.

Good board and lodging can readily be obtained in the city at from \$4 to \$5 per week. The expenses may be lessened to students rooming together. The average price paid for board with rooms during the last two or three years by students in good houses near the Law School is believed to have been not over \$20 per month, while some have obtained it as low as \$15.

Those who find it necessary to earn a part of their living in other pursuits while taking the course can do so by lengthening that course from two to three years, taking a proportionate part of the class-work (to be designated by the Faculty according to circumstances of each case) in each year. Every facility will be extended to them for such an arrangement; and the charge for tuition in such cases will only be for two years; but no other diminution of the daily requirements of attendance and study will be sanc-

tioned, except in the case of special students not candidates for a degree.

The expense of text-books for the entire course, if purchased new and of the latest editions, is about \$75. This sum may be materially reduced by the purchase of second-hand books which may be usually had in considerable variety. All the books used in recitation may be found in the Library and can be studied there free of charge, but not taken from the room.

OPPORTUNITIES FOR STUDY IN OTHER DEPARTMENTS OF THE UNIVERSITY.

Students paying full tuition in the Law Department may take special studies in the Undergraduate Department without additional charge for tuition, provided they are able to do so without interference or neglect of any part of the Law course. To avail themselves of this privilege, they must present for each course a written introduction from the Dean of the Law Faculty and must engage to attend such course punctually, and to conform to the same regulations with other students of that course.

SCHOLARSHIPS AND PRIZES.

In pursuance of the terms of a donation of \$6,000 heretofore made to the University for the benefit of the Law School, *six free scholarships* are established

in this department; also an annual prize of \$50 in money for the best thesis upon some legal topic, to be publicly awarded at Commencement. Competition for this prize is confined to the regular members of the graduating class in each year under regulations duly announced.

Applicants for *free scholarships* should apply in person or by letter to the Dean, on or before the fifteenth day of September, furnishing written testimonials of at least two responsible persons, that the pecuniary circumstances of the applicant are such as to make him deserving of this assistance, that he is of good character and standing, and that he has received a good English education at least. Other things being equal, preference will be shown to candidates who have received a collegiate education, and especially to those who have done this wholly or partially by their own efforts. Applicants not personally known to any of the Faculty will do well to state fully and precisely their age, place of birth and residence, present occupation, education (both general and legal), and any other circumstances that may be of weight in making a selection. Such communications will be held strictly confidential.

As the applicants for *free scholarships* are usually far in excess of the number that can be given, no student will hereafter have the benefit of such scholarship for more than one year. As far as practicable,

the scholarships will be equally divided between the two classes—depending upon the number and success of the candidates for scholarship in either class.

Two members of each class have an opportunity to earn their tuition and a small salary in addition, by service as librarians, and in other capacities connected with the work of the School. Application for such positions must be made in person, on or before the fifteenth day of September.

For further information, inquiries may be addressed to WM. S. CURTIS, Law School Building, 1417 Locust St., St. Louis, Mo., or the Secretary of Washington University.

ST. LOUIS MEDICAL COLLEGE.

(MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY)

CALENDAR.

1898-1899.

SESSION OPENS Thursday, September 22.

CHRISTMAS VACATION, December 23 to January 2, inclusive.

**COMMENCEMENT (Graduating Exercises), Thursday, April
27, 1899.**

**HOLIDAYS: Thursday of Fair Week, Thanksgiving Day,
Washington's Birthday.**

ST. LOUIS MEDICAL COLLEGE.

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Instructor in Clinical Medicine.

JULES F. VALLE, M.D.,
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VILRAY P. BLAIR, M.D.,
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Clinical Lecturer on Diseases of the Nose, Throat and Chest.

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Instructor in Materia Medica and Pharmacy.

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HENRY C. HARTMANN, M.D.,
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STAFF OF THE O'FALLON DISPENSARY.

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Director.

CLINICAL LECTURERS.

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Surgery.

PROFESSOR W. E. FISCHEL,
Medicine.

PROFESSOR ROBERT LUEDEKING,
Diseases of Children.

PROFESSOR JOHN GREEN,
Diseases of the Eye.

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Diseases of Genito-Urinary Organs.

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Diseases of the Nervous System.

PROFESSOR HENRY SCHWARZ.
Diseases of Women.

PROFESSOR N. B. OARSON,
Surgery.

PROFESSOR JOSEPH GRINDON,
Diseases of the Skin.

PROFESSOR J. B. SHAPLEIGH,
Diseases of the Ear.

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Physical Diagnosis.

DR. EDWIN C. BURNETT,
Syphilis.

DR. ARTHUR E. EWING,
Diseases of the Eye.

DR. GREENFIELD SLUDER,
Diseases of the Nose, Throat and Chest.

DR. A. E. TAUSSIG,
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DR. HENRY C. HARTMANN,
Orthopaedic Surgery.

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DR. ELSWORTH SMITH, DR. H. FRUMSON,
DR. H. W. BEWIG, DR. A. E. TAUSSIG,
Medical Clinic.

DR. H. C. HARTMANN, DR. P. J. HEUER.

Surgical Clinic.

DR. WILLIS HALL, DR. W. C. MARDORF,

DR. A. G. SCHLOSSSTEIN, DR. C. C. L. F. BRUEHMANN,

Gynæcological Clinic.

DR. WM. A. SHOEMAKER, DR. JOS. W. CHARLES,

Ophthalmic Clinic.

DR. E. C. BURNETT, DR. H. McC. JOHNSON,

Clinic for Diseases of the Genito-Urinary Organs and Syphilis.

DR. G. S. MILLER, DR. G. M. TUTTLE,

Clinic for Diseases of Children.

DR. MALCOLM A. BLISS, DR. H. W. SOPER,

DR. M. W. HOGE,

Clinic for Diseases of the Nervous System.

DR. J. F. VALLE, DR. J. M. SCOTT,

DR. WILLIS HALL, DR. HENRY SCHWATZ,

DR. W. C. MARDORF, DR. F. A. GLASGOW,

Obstetrical Clinic.

DR. CHAS. F. GOODRICH,

In Charge Obstetrical Out-Clinic.

DR. GREENFIELD SLUDER,

Clinic for Diseases of the Throat.

DR. J. P. HOEFFER,

Clinic for Diseases of the Skin.

DR. A. F. KOETTER,

Clinic for Diseases of the Ear.

ST. LOUIS MULLANPHY HOSPITAL.

PROFESSOR E. H. GREGORY,
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CLINICAL LECTURERS.

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Surgery.

PROFESSOR N. B. CARSON,
Surgery.

PROFESSOR J. P. BRYSON,
Genito-Urinary Surgery.

PROFESSOR FRANK A. GLASGOW,
Diseases of Women.

PROFESSOR E. M. SENSENEY,
Diseases of the Nose, Throat and Chest.

PROFESSOR J. GRINDON,
Diseases of the Skin.

DR. L. L. McOABE,
Medicine.

DR. MALCOLM A. BLISS,
Diseases of the Nervous System.

ST. LOUIS CITY HOSPITAL.

CLINICAL LECTURERS.

PROFESSOR H. H. MUDD,

Surgery.

PROFESSOR HARVEY G. MUDD,

Alternate.

PROFESSOR W. E. FISCHEL,

Medicine.

DR. ELSWORTH SMITH,

Alternate.

STUDENTS OF ST. LOUIS MEDICAL COLLEGE,
SESSION OF 1898-99.

NAME.	RESIDENCE.
Abeken, Frederick Gustavus.....	Missouri.
Aitken, Wallace Andrew	Kansas.
Apperson, Edwin Lewis	Missouri.
Barry, Fred Wheeler	Illinois.
Bland, Warren Wilson	Missouri.
Boesewetter, Richard, Jr	Missouri.
Boone, Alfred Francis	Missouri.
Brandt, Arnold Louis	Missouri.
Breath, Walter Barry	Texas.
Bunyan, Maurice Vincent	Illinois.
Burns, Robert, Jr.....	Missouri.
Caldwell, Robert Lee	Missouri.
Cannady, Edward Wyatt	Illinois.
Cass, William Edwin, M. D.....	Ohio.
Chapman, Oliver Gaus	Missouri.
Corner, Albert Watson	Missouri.
Churchill, Haines Roy Harrison	Illinois.
Davis, Holland Acher.....	Missouri.
Davis, Homer Willard	Illinois.
Diechmann, Otto Henry	Illinois.
Dillon, William	Missouri.
Downey, Louis Joseph	Indiana.
Drake, Claire F	Missouri.
Eberlein, Edwin William	Missouri.
Farmer, Percy Joseph	Missouri.
Farrell, John Joseph	Missouri.
Fischer, Oscar Hermann	Missouri.
Fleeger, Abram Boyd	Missouri.
Fleming, John Bartley	Missouri.
Fordier, Carver William.....	Missouri.
Forsyth, Robert Culver	Missouri.

NAME.	RESIDENCE.
Frazer, Samuel Horace	Missouri.
Gehrung, Julien August, A. B.....	Missouri.
Gowans, Charles	Illinois.
Gray, Benjamin Franklin	California.
Hardy, Joseph Bryant	Illinois.
Hardy, William Frederic	Missouri.
Hardin, William Rufus	Missouri.
Hart, Trusten	Missouri.
Hauviell, Charles Poplin	Missouri.
Hempel, Max	Missouri.
Hertel, Henry George	Illinois.
Hofmann, Ottokar, Jr.....	Kansas
Holke, Theophil James	Illinois.
Hogg, Garrett	Missouri.
Humphrey, Joseph Harris	Missouri.
Irwin, Joseph Max	Illinois.
Isele, George Henry	Illinois.
Kane, Robert Emmet, A. M.....	Missouri.
Keehu, Leonard	Missouri.
Kirchner, Walter Charles George, A. B.....	Missouri.
Krenning, William George	Missouri.
Lawless, Charles Lester	Missouri.
Llouberger, John Robert	Missouri.
Matlack, James Allan	Missouri.
Lowenstein, Harry Marcus	Missouri.
Marshall, Albert	Missouri.
Max, Clarence Oscar Christian	New York.
May, Albert	Illinois.
Meirink, Bernard John	Illinois.
Miller, Henry Edward	Missouri.
Montgomery, Calvin Carlin	Illinois.
Murphy, Bradford	Missouri.
McCully, Alex	Missouri.

NAME.	RESIDENCE.
McKenzie, Robert Ewing	Illinois.
MacMahon, Bernard Leo	Missouri.
Niebruegge, Henry John	Illinois.
Outhouse, Raymond Oliver	Illinois.
Paine, George Franklin	Missouri.
Pettit, Joseph Asahel.....	Gregen.
Pfeiffenberger, James Mather	Illinois.
Pitman, John Brand	Illincis.
Reyburn, Amedee Valle, Jr.....	Missouri.
Romeiser, Theo H	Missouri.
Ross, Justin Earle	Illinois.
Rothman, Paul Morris	Missouri.
Rothschild, Samuel	Missouri.
Itush, William Harvey, S. B., A. B., A. M.....	Missouri.
Smith, Arthur Joseph	Missouri.
Smith, Oswald Wayne	Missouri.
Sombart, William Ernest	Missouri.
Spitzne, Edward Christian	Illinois.
Stephens, George Kellogg	Arkansas.
Stephens, Philip Howard	Missouri.
Stockhoff, Frank Edwin	Missouri.
Stouffer, Robert Walker	Missouri.
Strode, Edward Austin	Missouri.
Studer, Joseph Valentine	Illinois.
Teel, William Garth	Virginia.
Thebus, Robert Philip	Missouri.
Trottman, Charles Arnold	Missouri.
Tutt, John Maurice	Missouri.
Vahlkamp, Charles Gustav	Missouri.
Walker, Henry Owen	Missouri.
Washburn, Burton Adelbert	Arkansas.
Williams, Dudley Boone, A. B.....	Kentucky.
Woldridge, Homer Lee	Missouri.
Total.....	97

The St. Louis Medical College was founded in 1842 as the Medical Department of St. Louis University. Incorporated by special charter in 1855, its annual courses of instruction were continued by the same Faculty, which, under an ordinance enacted April 14, 1891, was created the Medical Faculty of Washington University. In October, 1892, the College opened, in its new building, its fifty-first consecutive annual session.

The graded course of study established by the St. Louis Medical College in 1880 has been elaborated and extended from time to time, as riper experience has dictated, and always in the direction of higher standards and broader teaching. Another step in advance is now taken by requiring four full years of attendance at College from all future matriculants before they can become candidates for graduation..

The annual sessions are of seven calendar months, and ample opportunities for clinical study are afforded throughout the entire year. To students fitted by adequate preliminary training to profit by a comprehensive and thorough course of medical study this College offers exceptional advantages.

A distinctive feature of the St. Louis Medical College is the requirement of and full provision for extended laboratory work, by every student, in all the fundamental subjects of medical study. The extent and scope of the required practical work in Anatomy

and in Chemistry have been greatly enlarged, and full laboratory courses are given in Histology, in Medical Chemistry, in Pathological Anatomy and Histology, and in Bacteriology. In extent and completeness of laboratory equipment, the St. Louis Medical College ranks with the best and most progressive educational institutions of this country; in the comprehensiveness and thoroughness of its laboratory instruction it is now, as it has been for many years, greatly in advance of other medical schools in St. Louis.

The methods of clinical teaching followed in the St. Louis Medical College are characterized by the same attention to individual training as in its laboratory instruction. Thorough practical courses in the technique of Surgical Dressings and Antisepsis and of Physical Diagnosis are given in the Junior Year, and systematic use is made of all the general and special clinics of the College in the further study of diagnostic methods as illustrated and tested in the personal examination of patients.

The O'Fallon Dispensary is a special Clinical Department of the College with general Medical and Surgical Clinics, and special Clinics for Diseases of Children, for Diseases of the Eye, for Genito-Urinary Surgery, for Diseases of the Nervous System, for Diseases of Women, for Diseases of the Skin, for Diseases of the Ear, for Orthopædic Surgery, for Syphilis, for Diseases of the Nose, Throat and Chest, etc.

All these various Clinics are conducted in the College building, where large and well arranged reception and Clinic rooms have been provided on the first floor, which, together with a spacious and admirably constructed operating theater with its waiting rooms and annexes, amply meet all requirements of space and convenience.

An Obstetrical Out-clinic attached to the Dispensary affords the Senior student special opportunities for practical work in this important branch of medicine.

The extensive general and special Clinics of the St. Louis Mullanphy Hospital are conducted by members of the Faculty and physicians connected with the St. Louis Medical College, and are devoted wholly to the instruction of its students. At the City Hospital, the Female Hospital and the City Insane Asylum and Poor House, the College shares on equal terms with others in the privileges of visiting and of clinical instruction. Weekly Surgical and Medical Clinics are held at the City Hospital by Professors H. H. Mudd and W. E. Fischel, and are attended by the second and third year Classes.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the College will be received upon the following conditions:—

1. Satisfactory certificates of good moral standing.
2. (a) The presentation of a College degree in Letters or Science, (b) of a diploma or certificate of graduation from an Academy or high school, or (c) of a certificate showing that the candidate has passed the entrance examination to an accredited College or scientific school, or (d) the special preliminary examination prescribed by State regulations for admission to the study of medicine, or (e) passing an examination in the following branches: English grammar and composition, arithmetic, algebra as far as quadratics, elementary physics, United States history, geography, and Latin equivalent to one year in a high school.*

These examinations will be conducted by examiners, appointed by the Chancellor of Washington University.**

Inasmuch as the requirements preliminary to the study of medicine and to the registration of physicians vary somewhat in the different States, it is particularly

* Candidates who fail in the examination in Latin will be given an opportunity to make up the deficiency before the beginning of their second year.

** Regular entrance examinations will be held on September 26 and 27, 1899. Candidates may, however, arrange for special examination during the summer by applying to the Dean.

enjoined upon all students to conform, in all respects, to the special regulations governing admission to medical practice in the State in which they intend to reside.

ADMISSION TO ADVANCED STANDING.

Students who have attended one course of lectures in an accredited regular School of Medicine, or who are graduates of an approved School of Biology, may enter upon the work of the Second Year upon presentation of a satisfactory grade from their former school in the studies of the Junior Year, or upon examination in these studies*. Students who have attended two courses of lectures in an accredited regular School of Medicine may enter upon the work of the Third year upon presentation of a satisfactory grade from their former school in the studies of the Junior and Second years, or upon examination in these studies.

Students who have attended three courses of lectures in an accredited regular School of Medicine may enter upon the work of the Fourth Year upon presentation of a satisfactory grade from their former school in the studies of the first three years, or upon examination in these studies.

*Students from other colleges who fail to pass in some of the Junior examinations, may be received into the Second Year class *on condition* that they pass these examinations at the end of the Second Year.

SCHEDEULE OF WORK.

The curriculum, covering Four Years, is divided into eight semesters, the first semester of each year ending at Christmas, the second semester beginning with the New Year. Students are required to pass in the subjects upon which examinations are held in each year before entering on the work of the next.

JUNIOR YEAR, FIRST TERM. (SEMESTER I.)

General Elementary Chemistry, Lectures and Demonstration, 3 hours a week.*

Laboratory work in General Chemistry, 4 hours.

Anatomy: Osteology and Syndesmology, Lectures and Demonstrations, 3 h.†

Descriptive Anatomy (other than Osteology), Lectures and Demonstrations, 3 h.

Practical Anatomy, Laboratory work, 8 h.

Laboratory work in Histology, 6 h.

Materia Medica, Lectures and Demonstrations, 4 h.*

JUNIOR YEAR, SECOND TERM. (SEMESTER II.)

Chemistry: Laboratory work in Qualitative Analysis, 7 h.†

Descriptive Anatomy, Lectures and Demonstrations, 3 h.*

Practical Anatomy, Laboratory work, 8 h.

Histology, Laboratory work, 6 h.†

Physiology, Lectures, Demonstrations and Conferences, 4 h.

Pharmacy, Laboratory work, 4 h.

*Examination in this branch is held about the end of the Semester.

†Final examination at the end of the Semester.

SECOND YEAR, FIRST TERM. (SEMESTER III.)

Descriptive Anatomy, Lectures and Demonstrations, 3 h.

Regional Anatomy, Lectures and Demonstrations, 2 h.†

Practical Anatomy, Laboratory work, 8 h.

**Physiology, Lectures, Demonstrations and Conferences,
4 h.†**

Physiology, Laboratory work, 4 h.

**Pathology, Pathological Anatomy and Histology, Lectures
and Demonstrations, 3 h.**

Pathological Histology, Laboratory work, 4 h.

Therapeutics, Lectures and Demonstrations, 3 h.

**Clinical Chemistry and Chemical Diagnosis, Laboratory
work, 4 h.**

SECOND YEAR, SECOND TERM. (SEMESTER IV.)

Descriptive Anatomy, Lectures and Demonstrations, 3 h.†

Practical Anatomy, Laboratory work, 8 h.

Bacteriology, Laboratory work, 4 h.†

Pathology, Lectures and Demonstrations, 3 h.†

Pathological Histology, Laboratory work, 4 h.

Therapeutics, Lectures and Demonstrations, 1 h.†

**Clinical Chemistry and Chemical Diagnosis, Laboratory
work, 4 h.†**

**Medicine: Practical Exercises in Normal Percussion and
Auscultation, 2 h.**

General Medical Clinic, 1 h.

**Surgery: Practical Exercises in Surgical Dressings, 1 h.
General Surgical Clinic, 1 h.**

†Final Examination at the end of the Semester.

THIRD YEAR, FIRST TERM. (SEMESTER V.)

- Medicine: Principles of Medicine, Lectures, 1 h.
Physical Diagnosis, Practical Exercises, 3 h.
Practice of Medicine (first half), Lectures and Demonstrations, 3 h.
Diseases of Children, Lectures and Demonstrations, 2 h.
General Medical Clinics, 2 h.
Clinic for Diseases of Children, 1 h.
Clinic for Diseases of the Nose, Throat and Chest, 2 h.
- Surgery: Principles and Practice of Surgery, Lectures and Demonstrations, 3 h.
General Surgical Clinics, 5 h.
Clinic for Orthopaedic Surgery, 1 h.
- Obstetrics: Lectures, Demonstrations and Exercises on the Manikin, 3 h.
Clinic for Diseases of the Skin, 1½ h.
Clinic for Diseases of the Ear, 1 h.

THIRD YEAR, SECOND TERM. (SEMESTER VI.)

- Medicine: Principles of Medicine, Lectures, 1 h.†
Practice of Medicine (first half), Lectures and Demonstrations, 3 h.*
General Medical Clinics, 2 h.
Clinical Conference, 1 h.
Diseases of Children, Lectures and Demonstrations, 2 h.
Clinic for Diseases of Children, 1 h.
Diseases of the Nervous System, Lectures and Demonstrations, 2 h.

*Examination in this branch is held about the end of the Semester.

†Final Examination at the end of the Semester.

Clinic for Diseases of the Nervous System, 1 h.
 Clinic for Diseases of the Nose, Throat and Chest, 2 h.

Surgery: Principles and Practice of Surgery, Lectures and Demonstrations, 3 h.†

General Surgical Clinics, 5 h.

Clinic for Orthopaedic Surgery, 1 h.†

Obstetrics: Lectures, Demonstrations and Exercises, 3 h.†
 Gynaecological Clinics, 2 h.

Clinic for Diseases of the Genito-Urinary Organs, 2 h.

Clinic for Diseases of the Skin, 1½ h.

Ophthalmology, Lectures and Demonstrations, 1 h.

Clinic for Diseases of the Ear, 1 h.†

SENIOR YEAR. FIRST TERM. (SEMESTER VII.)

Medicine: Practice of Medicine (second half), Lectures and Demonstrations, 3 h.

Clinic for Diseases of Children, 1 h.

Clinic for Diseases of the Nervous System, 1 h.

Clinic for Mental Diseases, 2 h.

Clinic for Diseases of the Nose, Throat and Chest, 2 h.

Surgery, General Surgical Clinics, 5 h.||

Obstetrical Out-Clinic, by appointment.||

Gynaecology, Lectures and Demonstrations, 1 h.

Gynaecological Clinics, 2 h.

Genito-Urinary Surgery, Lectures and Demonstrations, 2 h.

Clinic for Genito-Urinary Surgery, 3 h.

Clinic for Syphilis, 1 h.

Clinic for Diseases of the Skin, 1½ h.†

†Final Examination at the end of the Semester.

||Opportunity is given to senior students to repeat the Course of Lectures on the Principles and Practice of Surgery, and on Obstetrics.

Ophthalmology, Lectures and Demonstrations, 1 h.

Ophthalmic Clinic, 1 h.

Hygiene, Lectures and Demonstrations, 2 h.†

SENIOR YEAR, SECOND TERM. (SEMESTER VIII.)

Medicine: Practice of Medicine (second half), Lectures and Demonstrations, 3 h.†

General Medical Clinics, 2 h.†

Clinical Conference, 1 h.

Clinic for Diseases of Children, 1 h.†

Clinic for Diseases of the Nervous System, 1 h.†

Clinic for Diseases of the Nose, Throat and Chest, 1 h.

Surgery, Lectures and Demonstrations on Fractures and Dislocations, 2 h.†||

General Surgical Clinics, 3 h.†

Obstetrical Out-Clinic, by appointment.||

Gynaecology, Lectures and Demonstrations, 2 h.†

Gynaecological Clinic, 1 h.

Clinic for Genito-Urinary Surgery, 1 h.

Lectures on Syphilis, 1 h.

Clinic for Syphilitic Diseases, 1 h.

Ophthalmic Clinic, 1 h.†

Forensic Medicine and Toxicology, Lectures, Demonstrations and Autopsies, 2 h.†

†Final Examination at the end of the Semester.

||Opportunity is given to senior students to repeat the Course of Lectures on the Principles and Practice of Surgery, and on Obstetrics.

NOTE.—The schedule of work for students of the Three Years' Course is the same as that of last year and will be found in the printed PROGRAMME furnished at the beginning of the term.

POST-GRADUATE COURSE.

Physicians, graduates of an accredited regular school of medicine, are admitted to any of the courses of instruction given in the College, subject to such restrictions as may grow out of the assignment of hours in the programmes of work laid out for the several classes, and to the single further restriction that, in case of those desirous of taking advanced laboratory work, such proficiency in elementary work as may be necessary for its successful prosecution will be required. A certificate of actual attendance will be given upon request.

REQUIREMENTS FOR GRADUATION.

- (1) The candidate must be twenty-one years of age.
- (2) He must be of good moral character (which includes unexceptionable conduct while at College).
- (3) He must have attended not less than *four* regular annual courses of medical instruction, the last of which must have been in this College.
- (4) He must, by the first of April, have notified the Dean, in writing, of his intention to present himself for examination.
- (5) He must have discharged all indebtedness to the College.
- (6) He must have passed a satisfactory examination in all the required subjects of the curriculum.

DEGREES.

The degree of Doctor of Medicine, *cum laude*, will be conferred upon students who, having passed in all of the required subjects of the four years, have attained an average of seventy-five per cent. In case of an exceptionally high grade being attained, the Faculty may, by vote, award the degree *magna cum laude* or *summa cum laude*.

TEXT-BOOKS.

The names of works recommended as Text-Books are printed in *italics*; those recommended for reference in common type—latest editions being understood.

CHEMISTRY.

Long's Experimental and Analytical Chemistry. *Sanger's Laboratory notes in General Chemistry and Qualitative Analysis.* *Simon's Manual of Chemistry.* *Newth's Text-Book of Inorganic Chemistry.*

ANATOMY.

Morris's Human Anatomy, or Gray's Anatomy. *Holden's Guide to Dissections.* *Wilder's Anatomical Technology.* *Treves's Surgical Applied Anatomy.* *Quain's Anatomy,* *Holden's Osteology.*

HISTOLOGY.

Piersol. Stohr.

PHYSIOLOGY.

Foster. American Text-Book of Physiology. *Stewart's Manual of Physiology.*

MATERIA MEDICA AND THERAPEUTICS.

H. C. Wood's Therapeutics. *Hare's Text-Book of Practical Therapeutics.* *Thornton's Dose-book and Manual of Prescription Writing.* *United States Dispensatory.*

PATHOLOGICAL ANATOMY AND HISTOLOGY.

Ziegler. *Woodhead.* *Delafield & Prudden.*

BACTERIOLOGY.

Sternberg's Manual for Students. *McFarland's Text-book of Pathogenic Bacteria.*

MEDICINE.

Osler, or Wood and Fitz, or Tyson, Practice of Medicine. *Musser, Physical Diagnosis.* *Simon, Clinical Diagnosis.* *Vierordt or Da Costa, Medical Diagnosis.*

DISEASES OF THE NERVOUS SYSTEM.

C. L. Dana. *L. C. Gray.* *Insanity,* *Jno. B. Chapin.*

DISEASES OF CHILDREN.

Rotch, Pediatrics. *Holt, Diseases of Infancy and Childhood.* *Smith, Diseases of Children.* *American Text-Book of Diseases of Children.*

SURGERY.

Park's Treatise on Surgery by American Authors. *American Text-book of Surgery.* *Hamilton on Fractures and Dislocations.* *Stimson's Operative Surgery.* *Warren's Surgical Pathology and Therapeutics.*

OBSTETRICS.

Playfair. *Parvin.* *Davis.* *Dorlein.* *Boisliniere on Obstetrical Accidents, Emergencies and Operations.*

GYNÆCOLOGY.

American Text-book of Gynaecology. Clinical Gynæcology, Keating & Coe. Goodell, Lessons in Gynaecology. Garrigues, Diseases of Women. American System of Obstetrics and Gynæcology. Thomas & Mundé, Diseases of Women. Byford, Manual of Gynaecology.

GENITO-URINARY DISEASES.

Morrow's System, Vol. I. Taylor. White & Martin.

SYPHILIS.

Cornil. (American Edition.)

OPHTHALMOLOGY.

Nettleship. Norris and Oliver. Noyes. Fuchs.

OTOLOGY.

Buck. Field. Burnett. Politzer.

DERMATOLOGY.

Crocker. Johnson.

FORENSIC MEDICINE.

Witthaus and Becker, Medical Jurisprudence, Forensic Medicine and Toxicology.

ORTHOPÆDIC SURGERY.

Young. Orthopaedic Surgery. Walsham and Hughes, Deformities of the Human Foot. Bradford and Lovett, Orthopaedic Surgery.

FEES.

(PAYABLE IN SEPTEMBER OF EACH YEAR.)

**Matriculation Fee (payable but once).....\$ 5 00
Fees for each year 100 00**

No charge is made for laboratory supplies or use of anatomical material.

No charge is made for demonstrators' or hospital tickets, or for graduation.

The matriculation fee (\$5.00) and the fee for the year (\$100.00), are payable to the Dean at the time of matriculation, at the beginning of the college year, in September.

Students are required to provide themselves with such articles of chemical apparatus as test-tubes, watch-glasses, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

All indebtedness to the College must be discharged before entering on the final examination for graduation.

NOTE—Graduates of the St. Louis Medical College have perpetual free admission, but will be charged a laboratory fee of \$20.00.

Graduates, under three years, of other medical schools, will be charged the matriculation fee and twenty dollars, for attendance during a college year or part of a year; they will also be charged a laboratory fee of \$20.00.

Graduates of other medical schools, of three or more years' standing, will be charged the matriculation fee and a laboratory fee of \$20.00.

Graduates in medicine who may be admitted to the College as candidates for a degree will be charged the matriculation fee and the fee for one year.

Special Courses of Instruction may be arranged by applying to the Dean.

SCHOLARSHIPS.

1. The HENRY HITCHCOCK SCHOLARSHIP is held by Hon. Henry Hitchcock, and entitles the beneficiary to one year's free tuition.
2. The GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Diseases of Children, entitles the holder to one year's free tuition.

PRIZES.

Two "George F. Gill prizes" are offered to the students of the St. Louis Medical College, viz.:

1. One prize of \$50 to be awarded at the end of the Junior year to the member of the class who shall have made the highest grade in the anatomical work assigned to the Junior class.
2. One prize of \$50 to be awarded to a member of the graduating class, of high general standing, who shall have done specially good work in the department of *Diseases of Children*.

The George F. Gill prizes were awarded to DR. JOHN GREEN, JR., a member of the Graduating Class, for high general average and meritorious work in the study of Diseases of Children; and to MR. W. F. HARDY, a member of the Junior Class, for the best work in Anatomy.

HOSPITAL APPOINTMENTS.

Positions as internes at the St. Louis City and Female Hospitals are awarded each year, after competitive examination conducted by the Board of Health.

The successful candidates from the St. Louis Medical College this year were: Drs. John Green, Jr., R. B. H. Gradwohl, E. E. Richards, U. S. Smith, S. S. Stewart, C. W. Thierry, F. J. Taussig.

Physicians who wish to receive the Annual Announcement of the St. Louis Medical College regularly, are requested to send their address to the Secretary of the Faculty, Dr. John B. Shapleigh, No. 2608 Locust Street; notice of change of residence is also desired. All further information may be obtained by addressing or calling upon the Dean.

DR. HENRY H. MUDD,
No. 2604 Locust Street.

MISSOURI DENTAL COLLEGE.

(DENTAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR FOR 1898-99.

SATURDAY, October 8th: Preliminary Examination.

MONDAY, October 10th: Opening of Session.

THURSDAY, November 24th: Thanksgiving Day. Holiday.

FRIDAY, December 23d: Beginning of Christmas recess.

Wednesday, January 4th: End of Christmas Recess.

WEDNESDAY, February 22d: Washington's Birthday. Holiday.

THURSDAY, April 13th: Examination of Junior and Middle Classes begins.

THURSDAY, April 27th: Commencement Exercises.

Dentists who wish to receive the Annual Announcement regularly, or those who have changed their address, are requested to notify the Secretary of the Faculty, DR. A. H. FULLER, Columbia Building, southeast corner Eighth and Locust Streets.

Any further information may be obtained by addressing or calling upon the Dean,

HENRY H. MUDD, M. D.,
2604 Locust Street.

MISSOURI DENTAL COLLEGE.

BOARD OF OVERSEERS.

JAMES E. YEATMAN, PRESIDENT.

HENRY HITCHCOCK.

HENRY H. MUDD, M. D., TREASURER.

ALBERT H. FULLER, D.D.S., SECRETARY.

HENRY J. McKELLOPS, D.D.S.

JAMES B. NEWBY, D.D.S.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor of the University.

ELISHA H. GREGORY, M.D., LL.D.,
Professor of the Principles and Practice of Surgery.

ALBERT H. FULLER, M.D., D.D.S., SECRETARY,
Professor of Operative Dentistry.

HENRY H. MUDD, M.D., DEAN,
Professor of Oral and Clinical Surgery.

PAUL Y. TUPPER, M.D.,
Professor of Descriptive Anatomy.

EDGAR M. SENSENEY, M.D.,
Professor of Materia Medica and Therapeutics.

CHARLES R. SANGER, A.M., Ph.D.,
Professor of Chemistry.

ORION W. BEDELL, M.D., D.M.D.,
Professor of the Institutes of Dental Science.

SIDNEY P. BUDGETT, M.D.,
Professor of Physiology and Histology.

EDWARD H. ANGLE, D.D.S.,
Professor of Orthodontia.

CHAS. W. RICHARDSON, D.D.S.,
Professor of Dental Technics.

ROBERT R. VAUGHN, D.D.S.,
Professor of Mechanical Dentistry.

LECTURERS.

JOHN G. HARPER, D.D.S.,

Mechanical Dentistry.

JOSEPH MASERANG, JR., Ph.G.,

Materia Medica and Pharmacy.

GEORGE S. TUTTLE, M.D.,

Dental Anatomy.

JOHN E. NYMAN, D.D.S.,

Porcelain Work and Electro-Therapeutics.

CLINICAL INSTRUCTORS.

GEORGE A. BOWMAN, D.D.S.,

JAMES W. WICK, D.D.S.,

JAMES B. NEWBY, D.D.S.,

HENRY M. BAIRD, D.D.S.,

THEODORE L. PEPPERLING, D.D.S.,

ABEL J. PROSSER, D.D.S.,

PETER H. EISLOEFFEL, D.D.S.,

JOHN G. HARPER, D.D.S.,

ORMOND H. MANHARD, D.M.D.,

ALBERT H. FULLER, M.D., D.D.S.,

JOHN TIFFIN, D.M.D.,

LOUIS W. BARTEL, D.M.D.,

ALFRED D. FULLER, D.M.D..

JOSEPH B. KIMBROUGH, D.M.D.,

**STUDENTS OF THE MISSOURI DENTAL COLLEGE,
SESSION 1898-99.**

NAME.	ADDRESS.
Alley, Elwood	Missouri.
Alloway, Henry Clinton	Missouri.
Arthur, Willis Bertram, M.D.	Missouri.
Bass, Andrew Jackson	Missouri.
Buss, John Patton	Missouri.
Bauer, Alfred Gottfried	Missouri.
Bay, Roy	Missouri.
Bey, John Emil Charles	Missouri.
Black, Robert Elliott	Illinois.
Bohrer, Earnest Evert	Missouri.
Brown, J. Hinton	Missouri.
Burgard, Louis Charles	Illinois.
Busch, Walter August	Missouri
Butts, Robert Olen	Texas.
Byrne, Elmer	Illinois.
Corder, George Washington	Missouri.
Crane, LeRoy Vernon Miller.....	Missouri.
Dickson, Wesley Baxter	Missouri.
Donnell, Thomas Gresham	Oregon.
Dunn, Freeland Joseph	Missouri.
Eaton, Howard Holmes	Illinois.
Farrow, Claudius Golden	Arkansas.
Ferrell, Houston Everett	Missouri.
Ferguson, Stonewall Jackson.....	Missouri.
Fischer, Edward John	Missouri.
Gardiner, William Wetzel	Missouri.
Goodrich, Stephen Jones	Missouri.
Griffin, Edward	Missouri.

NAME.	ADDRESS.
Hartmann, John Michael	Ohio.
Haverstick, Edward Everett	Missouri.
Heitman, Frederick William	California.
Heitzig, Albert William	Missouri.
Henry, Leonard Quirin	Missouri.
Hirschi, Robert Oscar	Missouri.
Hoffmann, Henry Robert	Missouri.
Hopkins, Merle Robert	Minnesota.
Hopkins, Frank Cook	Illinois.
Horton, Edward Linn	Missouri.
Isle, Mauzey Whitfield	Missouri.
Jones, Louis Dibrell	Missouri.
Jordan, Carson Gamble	Missouri.
Kendall, Porter	Missouri.
King, Alpheus Carleton	Illinois.
Keller, Harry	Missouri.
Kehde, Howard Augustus	Missouri.
Kraft, Louis Henry	Illinois.
Lamkin, John Tennisson	Mississippi.
Lansberg, Herman Max	Missouri.
Lehuhard, Phillip Jay, Jr.	Missouri.
Lischer, Berno Edward	Illinois.
Long, Joseph Elmer	Illinois.
McCall, Robert Augustus	Illinois.
McCalman, Carl Spencer	Iowa.
McClean, Alex William	Missouri.
McDanel, Mark Leroy	Illinois.
McGuire, Eugene	Illinois.
McHenry, Ralph Leonidath	Missouri.
McInerney, Harry William	Kansas.
McKibben, William Frank	Missouri.
Matkin, Elmer Hicks	Missouri.
Matlack, James Allan	Illinois.

NAME.	ADDRESS.
Meriwether, Charles Louis	Missouri.
Miller, Joseph Sanford	Missouri.
Mockbee, Charles Robertson	Missouri.
Mueller, Henry Charles	Illinois.
Myers, Joel E.....	Illinois.
Nifong, Sylvester Cook	Missouri.
Obrock, Herman Charles	Missouri.
O'Connell, Francis Elias	Missouri.
Pettibone, Jacob Block	Iowa.
Pippin, Bland Nixon	Missouri.
Powell, Otho Bell	Kentucky.
Sappington, Clarence Leffingwell	Missouri.
Scherzinger, Alexander	Missouri.
Schmidt, Henry Bernard	Missouri.
Schwarz, Elmer Henry	Illinois.
Schlagenhauf, Edward	Illinois.
Scott, Ira Dudley	Missouri.
Sellinger, Owen	Missouri.
Smith, Handy Linn	Missouri.
Sone, William James	Missouri.
Spann, Herman Theodor	Missouri.
Stamm, Anton Peter	Missouri.
Staudinger, Paul Washington	Missouri.
Steinmesch, Henry Garrette	Missouri.
Stephens, Charles Edmund	Texas.
Stockhoff, Arthur Martin	Missouri.
Stone, Frank Powell	Missouri.
Strange, Algy Ferdinand	Illinois.
Straube, Clarel Shipherd	Missouri.
Temm, Brantner Edwin William	Missouri.
Terhellen, Emil William	Missouri.
Terrell, Will George Barkley.....	Illinois.
Thillenius, Arnold Otto	Missouri.

NAME.	ADDRESS.
Trauernicht, Fred William	Missouri.
Van Buskirk, Joe M.....	Missouri.
Walker, Edward Wilber	Missouri.
Wagner, Clifford Winfield	Illinois.
Wanamaker, Earl	Missouri.
Wavrin, John Arthur	Iowa.
Weber, Wilson Rudolph	Texas.
Westhoff, George Henry Martin	Missouri.
Wild, Rudolph	Missouri.
Wild, John	Missouri.
Williamson, Henry Turner	Texas.
Willett, Raymond Clair	Iowa.
Willson, Joseph Emory	Indiana.
Wolf, Albert William	Illinois.
Wood, Harry Thomas	Missouri.
Wurtz, Eugene Davis	Illinois.
Wyckoff, Charles	Illinois.
Young, William Beastall	Illinois.
Total	112

REQUIREMENTS FOR ADMISSION.

Every candidate for admission must present to the Faculty satisfactory evidence of a good, moral character. He must have a good English education, as evidence of which he must present a certificate of graduation from a high school, college, or university; or an entrance certificate to the Freshman class of the academical department of a college or university may be accepted. The institution, however, granting these certificates to be accredited as standard by the communities within which they are located; or, in lieu of this certificate he must take a written examination by an appointee of the State Superintendent of Education, in the following studies:—

ENGLISH : { Grammar,
Composition,
Grammatical Construction.

HISTORY : { United States,
General.

GEOGRAPHY: { Descriptive,
Physical.

MATHEMATICS : { Advanced Arithmetic,
Algebra—through Quadratics,
Plane Geometry.

LATIN : { Rules of Grammar, Declensions, Conjugations.
Construction.
Translation of Easy Prose.

ELEMENTARY PHYSICS.

Students who have attended courses of lectures in other accredited schools of Dentistry, will be received

into the advanced grades of Middle and Senior classes upon presentation of certificates of having passed examinations in the studies of the Junior and Middle grades respectively.

Such certificates are granted to any student after the satisfactory completion of a given course of study and are recognized as pledges to any college of the Association of Dental Faculties to whom the holder may apply that the stated number of terms have been spent in the institution by which the certificates are issued.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM DENTAL COLLEGES IN FOREIGN COUNTRIES.

In case of persons holding certificates from colleges of dentistry in foreign countries, they shall be required to furnish properly attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., the same as required of students coming from our own institutions.

ADMISSION OF GRADUATES OF MEDICINE.

A diploma from a reputable medical college entitles the holder to enter the Second or Middle class in colleges of this Association, and he will be excused from attendance upon the lectures, and examinations upon general anatomy, chemistry, physiology, materia medica and therapeutics.

ADMISSION OF UNDER-GRADUATES OF MEDICINE.

Under-graduates of reputable medical colleges who have regularly completed one full scholastic year, having attended at least seventy-five per cent of a five months term and passed a satisfactory examination in the studies of the Freshman year, will be admitted to the Middle class in colleges of this Association, subject to other rules governing admission to that class.

ADMISSION OF GRADUATES OF PHARMACY AND VETERINARY MEDICINE.

The colleges of this Association may admit as Second Year students, graduates of registered schools of pharmacy and veterinary medicine, subject to the examination requirements of each school of the Association.

Students are designated as belonging to the First, Second or Third Year Class.

No student of any class will be registered after the tenth day of the session.

Students of all classes are required to register at the beginning of each session at the Dean's Office.

LECTURES.

The course of lectures included in the curriculum of this College has been so classified and arranged as to

give the student the best opportunity for gaining a thorough knowledge of the branches taught.

A portion of the lectures to dental students is given in the St. Louis Medical College, in connection with the medical classes, thus furnishing a rare opportunity for the dental student to acquire the comprehensive knowledge of the fundamental branches of the science of medicine, so indispensable to the successful practice of any specialty.

The Museum, Anatomical Rooms and Chemical Laboratory of the St. Louis Medical College are as free to the dental as to the medical student.

SCHEDULE OF STUDIES.

FIRST OR JUNIOR YEAR.

Subjects Completed the First Year.....	{ Dental Anatomy. Materia Medica. Comparative Anatomy with Dissec- tion. Pharmacy.
Subjects Taken First Year and Continued During Second Year	{ Descriptive Anatomy. Practical Anatomy. Mechanical Dentistry. Dental Technology, Lect. and Labt'y Work. Metallurgy.

SECOND OR MIDDLE YEAR.

Subjects Completed the Second Year.....	{ Descriptive Anatomy. Therapeutics. Chemistry. Metallurgy. Dental Technics.
Subjects taken Second Year and Continued During Third Year..	{ Physiology. Operative Dentistry. Mechanical Dentistry.

THIRD OR SENIOR YEAR.

Subjects Completed the Third Year.....	{ Physiology. Hygiene. Surgery and Clinical Surgery. Operative Dentistry. Institutes of Dental Science. Mechanical Dentistry. Orthodontia.
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INFIRMARY.

This department is justly considered of the greatest practical importance. It is here the student must by the experience gained in actual practice with patients, lay the foundation for operative skill in his profession.

For this work the greater portion of three separate floors 26x84 feet have been set aside.

The first of these having a general office, with clerk and assistants constantly in charge to receive patients; a room for extracting teeth supplied with appliances

for the administration of the various anaesthetics used in dentistry. The remaining space of this floor is divided into rooms for Crown and Bridge work, light laboratory work and taking impressions.

The second floor is used exclusively as an operating room, having one side of continuous windows reaching from floor to ceiling, each window being fitted out with a good chair, wall bracket and cabinet to hold the student's entire outfit including dental engines. Here with perfect light and pleasant surroundings, the student has an ideal place for learning the practical part of operative dentistry. *

The basement is fitted out with modern apparatus for teaching all departments of Prosthetic Dentistry. This room has granitoid floors, good tables, benches, lathes, heating appliances, electric furnace and lockers for instruments. This infirmary, under the direction of the superintendent and demonstrators, is open daily except Sunday, during the entire year.

DENTAL TECHNICS.

Special courses are given during the first year for manual training in the mechanical operations of dentistry.

These comprise practical instruction by class work. The student takes impressions, makes sets of teeth, crowns, bridges, treats the more ordinary diseases of the teeth, and performs operations upon natural teeth

set in convenient forms and studies the anatomy and physical structure of the teeth. Each operation is taken up separately and must be completed in a manner satisfactory to the demonstrator. This method of teaching, though comparatively new, has proven the best yet devised for the rapid attainment of the high degree of manual skill required in the practice of dentistry.

OPERATIVE TECHNICS.

A study of the anatomy of the teeth by observation of enlarged pictures of tooth surfaces. Typical sets of teeth must be selected from miscellaneous collections, and free-hand drawings made of typical tooth forms. Dissections of teeth; the making of silhouette prints of same showing forms of inner walls of pulp chambers and canals, and the relation of dentine and enamel.

A study of all the materials in common use for filling teeth and practice in the preparation and insertion of them.

Practice in the shaping of cavities and handling of the instrument required.

Practice in preparation and filling of root canals.

A study of instruments, their proper naming, and use.

PRIZES.

Prizes will be awarded for proficiency in the different branches taught in the College.

The Missouri Dental College Faculty Prize.—A fifty-dollar gold medal to the graduate receiving the highest vote on final examination.

The S. S. White Dental Manufacturing Company Prize.—To the graduate excelling in Operative Dentistry.

The John Rowan Dental Mfg. Co. Prize.—To the graduate standing second best in practical Operative Dentistry.

The St. Louis Dental Manufacturing Company Prize.—For the best specimen case of artificial teeth.

The J. E. Kitzmiller Prize.—For the second best specimen case of artificial teeth. (Gold medal.)

At the Commencement exercises, April 28th, for the Class of 1898 the Missouri Dental College Faculty prize was awarded to Dr. Charles J. W. Hugo.

The S. S. White Dental Manufacturing Co. prize was awarded to Dr. Henry S. Kimbrough.

The John Rowan Dental Manufacturing Co. prize was awarded to Dr. James W. Hull.

The St. Louis Dental Manufacturing Company prize was awarded to Dr. Ernest L. Niemeyer.

The J. E. Kitzmiller prize was awarded to Dr. Gilbert D. Pearce.

REQUISITES FOR THE DEGREE OF DOCTOR OF DENTAL MEDICINE.

The candidate for graduation must be twenty-one years of age, and must possess a good moral character, *which includes good deportment while at the College.*

He must have attended three regular annual courses (no two courses of which shall have been taken during the same year) of dental instruction, the last of which must have been the Senior Course of this College.

He must treat thoroughly patients requiring all the usual dental operations, and under the eye of the Demonstrator, or Superintendent of the Infirmary, construct practical artificial cases. He must undergo a satisfactory examination on all the branches taught in the College and conform to the rules and regulations of the Infirmary.

Application for examination for the degree of D.M.D. must be made in writing by the 1st of April, each year, stating the claims of the applicant for such a degree.

This application should be accompanied by at least three letters of recommendation attesting good moral character from prominent citizens of the place of residence of the applicant.

FEES.

Matriculation Fee (paid but once) \$ 5 00
 Tuition, each Session 100 00

No charge for demonstrator's ticket or diploma.

The entire fee is due and must be paid in October at the beginning of each session.

No student will be permitted to take the final examination unless tuition fees have been paid.

TEXT-BOOKS.

LAST EDITIONS ONLY.

ANATOMY—Gray.

CHEMISTRY—Long's Experimental and Analytical Chemistry.

PHYSIOLOGY—Fester's Text-Book of Physiology.

PHARMACY—U. S. Pharmacopoeia.

MATERIA MEDICA AND THERAPEUTICS—H. C. Wood's.

PRINCIPLES AND PRACTICE OF DENTISTRY—Harris.

MECHANICAL DENTISTRY—Essig. Richardson.

ORTHODONTIA—Angle. Guilford.

SURGERY—"An American Text-Book of Surgery." Keen and White.

OPERATIVE DENTISTRY—Kirk. Taft.

DENTAL ANATOMY AND PATHOLOGY—Burchard. Tomes.

HISTOLOGY—Piersol.

BOOKS OF REFERENCE—American System of Dentistry; Harris' Dental Dictionary; Garretson or Tomes Dental Surgery; Kingsley and Coles—Oral Deformities; Newth's Inorganic Chemistry; Simon Manual of Chemistry; Farrar—Irrregularities of the Teeth.

SUMMARY OF GRADUATES.

OF THE COLLEGE.....		201
OF THE SCHOOL OF ENGINEERING		186
OF THE LAW SCHOOL.....		639
OF THE MEDICAL COLLEGE.....		2,131
OF THE DENTAL COLLEGE.....		393
		3,550
HONORARY GRADUATES.....		12
		3,562

SUMMARY OF MEMBERS OF THE UNIVERSITY.

	1897-1898		1898-1899	
	Stu.	Instrs.	Stu.	Instrs.
COLLEGE AND SCHOOL OF ENGINEERING	138	24	167	24
LAW SCHOOL	155	15	147	15
MEDICAL COLLEGE	92	34	97	34
DENTAL COLLEGE	124	16	112	16
TOTAL GRADUATE AND UNDERGRADUATE DEPARTMENTS	509	89	523	89

PREPARATORY SCHOOLS.

SMITH ACADEMY	348	23	370	21
MARY INSTITUTE.....	365	27	408	28
MANUAL TRAINING SCHOOL	206	15	234	14
	919	65	1,012	63
TOTAL GRADUATE, UNDERGRADUATE, AND PREPARATORY DEPARTMENTS.....	1,428	154	1,535	152
SCHOOL OF FINE ARTS.....	259	11	311	11
TOTAL CONNECTED WITH THE UNIVERSITY.....	1,687	165	1,846	163

OFFICERS OF THE ALUMNI ASSOCIATIONS.

UNDERGRADUATE DEPARTMENT.

President: MR. S. BENT RUSSELL.
Vice-President: MR. THOMAS G. RUTLEDGE.
Secretary and Treasurer: MR. WILLIAM D. HUDSON.
Executive Committee: MR. JOHN A. LAIRD, MR. GEORGE I. BOUTON, MR. HENRY BRANCH..

LAW DEPARTMENT.

President: MR. SELDEN P. SPENCER.
First Vice-President: MR. B. SCHNURMACHER.
Second Vice-President: MR. FREDERICK A. CLIVE.
Secretary: MR. ARTHUR E. KAMMERER.
Treasurer: MR. JARED W. YOUNG.
Executive Committee: MR. WILLIAM E. O'BRIEN, MR. WILLIAM E. WOERNER, MR. CHARLES ERD.

MEDICAL DEPARTMENT.

President: DR. W. E. FISCHEL.
Vice-President: DR. E. C. BURNETT.
Secretary: DR. N. M. SEMPLE.
Treasurer: DR. F. C. E. KUHLMANN.

DENTAL DEPARTMENT.

President: DR. J. G. HARPER.
Vice-President: DR. O. H. MANHARD.
Secretary: DR. J. B. KIMBROUGH.
Treasurer: DR. C. E. SCHUMACHER.
Executive Committee: DR. C. E. SCHUMACHER, DR. A. H. FULLER, DR. T. L. POEPERLING.

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P

WASHINGTON UNIVERSITY.



1899-1900.

A CATALOGUE
OF THE
OFFICERS AND STUDENTS
IN
WASHINGTON UNIVERSITY,
WITH THE
COURSES OF STUDY
FOR THE
ACADEMIC YEAR 1899-1900.

ST. LOUIS:
NIXON-JONES PRINTING CO.
1900.

CALENDAR FOR 1900 AND 1901.

1900.											
APRIL.	MARCH.	JAN.	FEB.	SUN.	MON.	TUES.	WED.	THUR.	FRI.	SAT.	SUN.
				1 2 3	4 5 6	7 8 9	10 11 12	13 14 15	16 17 18	19 20 21	22 23 24
				28 29 30	31 1 2	3 4 5	6 7 8	9 10 11	12 13 14	15 16 17	18 19 20
APRIL.	MARCH.	JAN.	FEB.	SUN.	MON.	TUES.	WED.	THUR.	FRI.	SAT.	SUN.
4	5	6	7	8	9	10	11	12	13	14	15
11	12	13	14	15	16	17	18	19	20	21	22
18	19	20	21	22	23	24	25	26	27	28	29
25	26	27	28								
JULY.	JUNE.	MAY.		SUN.	MON.	TUES.	WED.	THUR.	FRI.	SAT.	SUN.
				1 2 3	4 5 6	7 8 9	10 11 12	13 14 15	16 17 18	19 20 21	22 23 24
				10 11 12	13 14 15	16 17 18	19 20 21	22 23 24	25 26 27	28 29 30	31 1 2
AUG.				SUN.	MON.	TUES.	WED.	THUR.	FRI.	SAT.	SUN.
				1 2 3	4 5 6	7 8 9	10 11 12	13 14 15	16 17 18	19 20 21	22 23 24
				28 29 30	31 1 2	3 4 5	6 7 8	9 10 11	12 13 14	15 16 17	18 19 20
SEPT.	OCT.	NOV.	DEC.	SUN.	MON.	TUES.	WED.	THUR.	FRI.	SAT.	SUN.
				1 2 3	4 5 6	7 8 9	10 11 12	13 14 15	16 17 18	19 20 21	22 23 24
				23 24 25	26 27 28	29 30 31	1 2 3	4 5 6	7 8 9	10 11 12	13 14 15
				30 31							

UNIVERSITY CALENDAR.

1899-1900.

- ENTRANCE EXAMINATION** to the Undergraduate Department,
Tuesday and Wednesday, September 26-27.
ENTRANCE EXAMINATION to the Law School, Wednesday, Sep-
tember 27.
ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 26-27.
ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 26-27.
SCHOOL OF FINE ARTS opens Monday, September 25.
UNDERGRADUATE DEPARTMENT opens Thursday, September 28.
LAW SCHOOL opens Thursday, September 28.
MEDICAL COLLEGE opens Thursday, September 28.
DENTAL COLLEGE opens Thursday, September 28.
HOLIDAY, Thanksgiving Day, Thursday, November 30.
VACATION, December 22, 1899, to January 1, 1900, inclusive.
FIRST TERM ends Saturday, February 3.
SECOND TERM begins Monday, February 5.
HOLIDAY, Washington's Birthday, Thursday, February 22.
MEDICAL COLLEGE closes Friday, April 20.
DENTAL COLLEGE closes Thursday, April 26.
COMMENCEMENT. Medical and Dental Colleges, Thursday,
April 26.
UNIVERSITY HOLIDAY, Friday, May 11.
EXHIBITION OF WORK of School of Fine Arts, June 13-15.
ENTRANCE EXAMINATION to the Undergraduate Department,
Monday and Tuesday, June 18-19.
COMMENCEMENT, Law School and Undergraduate Department,
Thursday, June 21.
VACATION, June 22 to September 27.

1900-1901.

ENTRANCE EXAMINATION to the Undergraduate Department.
Tuesday and Wednesday, September 25-26.

ENTRANCE EXAMINATION to the Law School, Wednesday, September 26.

ENTRANCE EXAMINATION to the Medical College, Tuesday and Wednesday, September 25-26.

ENTRANCE EXAMINATION to the Dental College, Tuesday and Wednesday, September 25-26.

SCHOOL OF FINE ARTS opens Monday, September 24.

UNDERGRADUATE DEPARTMENT opens Thursday, September 27.

LAW SCHOOL opens Thursday, September 27.

MEDICAL COLLEGE opens Thursday, September 27.

DENTAL COLLEGE opens Thursday, September 27.

HOLIDAY, Thanksgiving Day, Thursday, November 29.

VACATION. December 24, 1900, to January 2, 1901, inclusive.

FIRST TERM ends Saturday, February 2.

SECOND TERM begins Monday, February 4.

CORPORATION.

PRESIDENT:
ROBERT S. BROOKINGS.

VICE-PRESIDENT:
HENRY HITCHCOCK.

SECRETARY:
GEORGE M. BARTLETT.

TREASURER:
WINFIELD S. CHAPLIN.

Office in University Building, 1704 Washington Avenue.

DIRECTORS:

HENRY HITCHCOCK	.	.	.	.	54 Vandeventer pl.
JAMES E. YEATMAN	.	.	.	.	3817 Washington boul.
GEORGE E. LEIGHTON	.	.	.	.	808 Garrison av.
EDWIN HARRISON	.	.	.	.	3747 Westminster pl.
HENRY W. ELIOT	.	.	.	.	2635 Locust st.
SAMUEL CUPPLES	.	.	.	.	3673 West Pine boul.
GEORGE A. MADILL	.	.	.	.	4140 Lindell boul.
WILLIAM L. HUSE	.	.	.	.	9 Westmoreland pl.
ROBERT S. BROOKINGS	.	.	.	.	5125 Lindell av.
CHARLES NAGEL	.	.	.	.	3969 Washington boul.
GEORGE O. CARPENTER	.	.	.	.	Russell & Compton avs.
ISAAC H. LIONBERGER	.	.	.	.	3630 Delmar boul.
ALFRED L. SHAPLEIGH	.	.	.	.	3636 Delmar boul.
ISAAC W. MORTON	.	.	.	.	49 Vandeventer pl.
ADOLPHUS BUSCH	.	.	.	.	1 Busch place.
DAVID R. FRANCIS	.	.	.	.	4421 Maryland av.

O F F I C E R S
O F
GOVERNMENT AND INSTRUCTION.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor 3636 West Pine boul.

UNDERGRADUATE DEPARTMENT.

SYLVESTER WATERHOUSE, Ph. D.,
LL.D., Collier Professor of Greek . 1637 Washington av.
CALVIN M. WOODWARD, A. B.,
Ph. D., Thayer Professor of Mathematics and Applied Mechanics . . 3013 Hawthorne boul.
GEORGE E. JACKSON, A. M., Professor of Latin 4400 Morgan st.
MARSHALL S. SNOW, A. M., Professor of History, and Dean of the College 529 Spring av.
FRANCIS E. NIPHER, A. M., Wayman Crow Professor of Physics . . 3021 Dickson st.
EDMUND A. ENGLER, A. M., Ph. D., Professor of Mathematics and Descriptive Geometry, and Dean of the School of Engineering 5739 Cabanne pl.
— — — — — Professor of Mathematics and Astronomy
JOHN FISKE, LL.D., Litt. D., University Professor of American History Cambridge, Mass.
WILLIAM TRELEASE, S. D., Engelmann Professor of Botany Mo. Botanical Garden.

- JAMES MAIN DIXON, M. A., F. R.
S. E., Professor of the English Lan-
guage and Literature 5886 Von Versen av.
- OTTO HELLER, Ph. D., Professor of
the German Language and Liter-
ature 2847 Morgan st.
- JOHN HENRY KINEALY, D. E., Pro-
fessor of Mechanical Engineering . 5030 Morgan st.
- EDWARD H. KEISER, Ph. D., Elliot
Professor of Chemistry 519 Spring av.
- JOHN LANE VAN ORNUM, C. E.,
William Palm Professor of Civil
Engineering 4269 Delmar boul.
- GUSTAV HAMBACH, M. D., Adjunct-
Professor of Geology 1319 Lami st.
- HOLMES SMITH, Instructor in Draw-
ing 2660 Washington av.
- GASTON DOUAY, Instructor in the
French Language and Literature . 626 N. Garrison av.
- HERMANN VON SCHRENK, A. M.,
Ph. D., Instructor in Botany . . . 48 Nicholson pl.
- ROBERT F. HOXIE, Ph. B., In-
structor in Economics 2727 Russell av.
- GELLERT ALLEMAN, B. S., Ph. D.,
Instructor in Chemistry 626 N. Garrison av.
- ALEXANDER S. LANGSDORF, B. S.,
Instructor in Physics 3133 Laclede av.
- HERBERT F. ROBERTS, A. B., M. S.,
Instructor in Botany 2727 Russell av.
- WM. H. ROEVER, B. S., Instructor
in Astronomy 3628 St. Louis av.

ST. LOUIS SCHOOL OF FINE ARTS.

- HALSEY C. IVES, Director, Lecturer
on the Historical Development of
Art 3731 Westminster pl.

WASHINGTON UNIVERSITY.

- ROBERT P. BRINGHURST, Instructor in Modeling and Sculpture 1820 Locust st.
EDWARD M. CAMPBELL, Instructor in Drawing and Painting from Still Life Studio bldg.
ALICE M. MORE, Secretary, Lecturer on the History of Painting, Renaissance and Modern Schools . . . 1220 Hamilton av.
CHARLES WARD RHODES, Instructor in Perspective Shades and Shadows 3706 Olive st.
EDMUND H. WUERPEL, Instructor in Drawing and Painting from Life and Composition 3500 Henrietta st.
CHARLES P. DAVIS, Instructor in the Antique 2604 Lucas av.
JUSTINA V. A. PHILLIPS, Librarian, Instructor in Antique and Saturday Classes 3833a Olive st.
ALICE M. G. PATTISON, Lecturer on Engraving, Etching and Allied Arts 4254 Olive st.
LAURENCE EWALD, Instructor in Mechanical and Architectural Drawing 946 Maryville av.
CHARLES A. WINTER, Instructor in Drawing and Painting from Life, and Composition Studio bldg.
HENRIETTA ORD JONES, Instructor in Ceramic Painting The Franklin.
FREDERICK L. STODDARD, Instructor in Design, Applied Art and Water Color 1120 N. Compton av.

ST. LOUIS LAW SCHOOL.
WILLIAM S. CURTIS, A. B., LL.B., Dean 2140 Lafayette av.

- AMOS M. THAYER, LL.D. (U. S.
Circuit Judge), Professor of Equity
and Real Property Law 3638 West Pine boul.
- CHARLES NAGEL, LL.B., Professor
of the Law of Contracts and Com-
mercial Law 3969 Washington boul.
- GUSTAVUS A. FINKELNBURG, Lec-
turer on International Law 1843 Kennett pl.
- EDWARD C. ELIOT, A. M., LL.B.,
Lecturer on Sales and Bailments . 5468 Maple av.
- PENDLETON TAYLOR BRYAN,
LL.B., Lecturer on the Law of
Torts and Negligence 4346 McPherson av.
- CHARLES P. JOHNSON, A. M.,
LL.B., Lecturer on Criminal Law . 4300 Washington boul.
- FREDERICK N. JUDSON, A. M.,
LL.B., Lecturer on Constitutional
Law 3738 Washington boul.
- ISAAC H. LIONBERGER, A. M.,
Lecturer on Corporations, Statutes
of Limitations and Statutes of
Fraud 3630 Delmar boul.
- LEE SALE, LL.B., Lecturer on Part-
nership 2734 Lucas av.
- PAUL F. COSTE, A. B., LL.B., Lec-
turer on Agency 44 Nicholson pl.
- JACOB KLEIN, LL.B., Lecturer on
Extraordinary Legal Remedies . . 1742 Missouri av.
- C. ORRICK BISHOP, Lecturer on
Criminal Law Jennings, Mo.
- EDWARD S. ROBERT, LL.B., Lec-
turer on Evidence 3224 Washington av.
- JAMES P. MAGINN, LL.B., Lecturer
on Evidence 5588 Bartmer av.
- EBEN C. RICHARDS, LL.B., Lec-
turer on Damages 4007 Washington boul.

ST. LOUIS AND MISSOURI MEDICAL COLLEGE.

- J. B. JOHNSON, M. D., Professor
Emeritus of the Principles and Practice of Medicine 4244 Washington boul.
P. GERVAIS ROBINSON, M. D., LL.D., Professor Emeritus of the Principles and Practice of Medicine 2710 Washington av.
J. K. BAUDUY, M. D., LL.D., Professor Emeritus of Psychological Medicine and Diseases of the Nervous System 2808 Olive st.
J. M. SCOTT, M. D., Professor Emeritus of Obstetrics 3813 Morgan st.
ELISHA H. GREGORY, M. D., LL.D., Professor of the Principles of Surgery 3525 Lucas av.
G. BAUMGARTEN, M. D., Dean and Professor of the Practice of Medicine 2643 Chestnut st.
H. TUHOLSKE, M. D., Professor of the Practice of Clinical Surgery . . 2387 Locust st.
T. F. PREWITT, M. D., Professor of the Principles of Surgery 3101 Pine st.
*H. H. MUDD, M. D., Professor of the Practice of Surgery and Clinical Surgery, Dean
W. E. FISCHEL, M. D., Professor of Clinical Medicine 2647 Washington av.
ROBERT LUEDEKING, M. D., Professor of the Diseases of Children . 1837 Lafayette av.
JOHN P. BRYSON, M. D., Professor of Genito-Urinary Surgery, Treas. . 3833 West Pine boul.
JUSTIN STEER, M. D., Professor of Clinical Medicine 3126 Washington av.

* Died November 20, 1889.

- W. A. HARDAWAY, M. D., LL.D.,
Professor of Diseases of the Skin
and Syphilis 2920 Locust st.
- H. N. SPENCER, A. M., M. D., LL.D.,
Professor of Otology 2725 Washington av.
- W. C. GLASGOW, A. B., M. D., Professor
of Clinical Medicine and La-
ryngology 2847 Washington av.
- HENRY SCHWARZ, M. D., Professor
of Obstetrics 1723 Chouteau av.
- PAUL Y. TUPPER, M. D., Professor
of Applied Anatomy and Operative
Surgery 4286 Delmar boul.
- E. W. SAUNDERS, M. D., Professor
of Diseases of Children and Clinical
Midwifery 1635 S. Grand av.
- N. B. CARSON, M. D., Professor of
Clinical Surgery 4379 Westminster pl.
- J. B. SHAPLEIGH, M. D., Professor
of Otology, Secretary 3840 Delmar boul.
- SIDNEY P. BUDGETT, M. D., Pro-
fessor of Physiology, Registrar . . 4105 Washington boul.
- JOHN GREEN, M. D., Special Pro-
fessor of Ophthalmology 2670 Washington av.
- FRANK R. FRY, M. D., Professor of
Diseases of the Nervous System . . 3133 Pine st.
- F. A. GLASGOW, M. D., Professor of
Clinical Gynaecology 4056 Washington boul.
- H. G. MUDD, M. D., Professor of
Fractures and Dislocations, and Clin-
ical Surgery 4144 Washington boul.
- E. M. SENSENNEY, M. D., Professor
of Diseases of the Throat, Nose, and
Chest 2829 Washington av.
- A. J. STEELE, M. D., Professor of
Orthopedic Surgery 2825 Washington av.

- JOSEPH GRINDON, M. D., Professor
of Clinical Dermatology and Syphilis. 509 N. Theresa av.
- A. V. L. BROKAW, M. D., Professor
of Clinical Gynaecology 3147 Washington av.
- AMAND RAVOLD, M. D., Professor
of Bacteriology and Hygiene 2806 Morgan st.
- CHARLES NAGEL, LL.B., Professor
of Medical Jurisprudence 3969 Washington boul.
- W. H. WARREN, Ph. D., Assistant
Professor of Chemistry 1806 Locust st.
- R. J. TERRY, M. D., Assistant Professor
of Anatomy 2726 Washington av.
- ELSWORTH SMITH, JR., M. D.,
Clinical Professor of Medicine 3538 Pine st.
- D. C. GAMBLE, M. D., Clinical Professor
of Diseases of the Ear 5961 Plymouth av.
- CHARLES H. DIXON, M. D., Clinical
Lecturer on Surgery 3343 Morgan st.
- HENRY L. WOLFNER, M. D., Clinical
Lecturer on Diseases of the Eye. 4568 Forest Park boul.
- GREENFIELD SLUDER, M. D., Clinical
Lecturer on Diseases of the Nose,
Throat and Chest 2647 Washington av.
- EDWIN C. BURNETT, M. D., Clinical
Lecturer on Syphilis University Club.
- VILRAY P. BLAIR, M. D., Lecturer on
Descriptive Anatomy 319 N. Grand av.
- A. E. EWING, M. D., Clinical Lecturer
on Diseases of the Eye 3333 Washington av
- LOUIS H. BEHRENS, M. D., Clinical
Lecturer on Diseases of the Chest . 3607a Olive st.
- ALBERT E. TAUSSIG, M. D., Clinical
Lecture on Medicine 2018 Rutger st.
- JOSEPH MASERANG, JR., Ph. G.,
Lecturer on Materia Medica and
Pharmacy 3838 Easton av.

THEODOR KODIS, M. D., Lecturer
on Pathology, and Curator of the
Museum 3126 Morgan st.
HENRY C. HARTMAN, M. D., Clin-
ical Lecturer on Orthopedic Surgery. 1301 St. Ange av.
GIVEN CAMPBELL, JR., M. D., Clin-
ical Lecturer on Diseases of the
Nervous System 3537 Morgan st.
GEORGE M. TUTTLE, M. D., Lec-
turer on Therapeutics 2942 Washington av.

MISSOURI DENTAL COLLEGE.

ELISHA H. GREGORY, M. D., LL.D.,
Professor of the Principles and
Practice of Surgery 3525 Lucas av.
ALBERT H. FULLER, M. D., D.D.S.,
Dean and Professor of Operative
Dentistry Columbia bldg.
ORION W. BEDELL, M. D., D.M.D.,
Secretary and Professor of the Insti-
tutes of Dental Science 1909 Lafayette av.
ROBERT R. VAUGHAN, D.D.S.,
Professor of Operative Technics 3109 Olive st.
VILRAY P. BLAIR, M. D., Demo-
strator of Practical Anatomy 319 N. Grand av.
JOSEPH MASERANG, Jr., Ph. G.,
Instructor in Materia Medica and
Pharmacy 3838 Easton av.
CHAS. W. RICHARDSON, D.D.S.,
Professor of Dental Technics 1814 Locust st.
NORMAN B. CARSON, M. D., Pro-
fessor of Oral and Clinical Surgery 3600 Olive st.
SIDNEY P. BUDGETT, M. D., Pro-
fessor of Physiology and Histology 4105 Washington boul.
HERMAN F. CASSELL, D.M.D., Pro-
fessor of Mechanical Dentistry 2602 Locust st.

- ARTHUR E. MATTESON, D.D.S.,
Professor of Orthodontia . . . Chicago, Ills.
GEORGE M. TUTTLE, M. D., Assistant
Professor of Materia Medica and
Therapeutics 3509 Morgan st.
WILLIAM H. WARREN, A. M., Ph. D.,
Assistant Professor of Chemistry . 1806 Locust st.
ROBERT J. TERRY, M. D., Assistant
Professor of Descriptive Anat-
omy 1806 Locust st.
CHARLES E. STEPHENS, D.M.D.,
Demonstrator of Mechanical Den-
tistry 1814 Locust st.
WILLIAM G. TEEL, D.M.D., Demon-
strator of Operative Dentistry . . 1814 Locust st.

GENERAL STATEMENT.

Washington University, founded in the city of St. Louis, under an Act of Incorporation by the State of Missouri, approved February 22, 1853, is intended to embrace the whole range of University studies except Theology, and to afford opportunity of complete preparation for every sphere of practical and scientific life.

By the eighth article of the Constitution, "No instruction, either sectarian or religious, or partisan in politics, shall be allowed in any department of the University; and no sectarian or partisan test shall be used in the election of professors, teachers, or other officers of the University for any purpose whatsoever. This article shall be understood as the fundamental condition on which all endowments, of whatsoever kind, are received." The Constitution also declares the article now quoted "not subject to alteration at any time;" but to guard against all encroachments in this important particular, the Directors have obtained from the General Assembly an amendment to the Charter, by which said article is incorporated in the same, and thereby placed beyond the power of any future Board of Directors. The Act of Amendment, approved February 12, 1857, declares: —

"SEC. 2. No instruction, either sectarian in religion, or partisan in politics, shall be allowed in any department of said University; and no sectarian or party test shall be allowed in the election of professors, teachers or

other officers of said University; or in the admission of scholars thereto, or for any purpose whatever.

“ SEC. 3. It shall be the duty of the Board of Directors of the said University, upon being informed of any violation of the second section of this Act, forthwith to institute an inquiry into the charge or charges that may be preferred, in respect thereof, by any credible person, in writing, against any officer of said University, and if it shall appear that any officer of said University has violated the second section of this Act, the Board of Directors shall forthwith remove any such person so offending from any office which he may then fill in any Department of said University; and such person so removed shall be forever thereafter ineligible to any office in said University.

“ SEC. 4. In case the Board of Directors, upon being notified in writing, by any credible person, of a violation of the second section of this Act, shall refuse or neglect to investigate the charges thereupon preferred against any officer of said University, it shall be competent for the St. Louis Circuit Court, or the St. Louis Court of Common Pleas, to compel the Board of Directors, by mandamus, to perform their duty in investigating such charge, and to show their performance of such duty to the satisfaction of the Court having cognizance of the matter, and all proceedings under this section shall be summary, and conducted to a conclusion with as little delay as possible; and the power hereby given to said courts may be exercised by the judge of either of said tribunals in vacation.”

On the 22d of April, 1857, the formal inauguration of Washington University took place with appropriate exercises in University Hall, and an oration delivered by Hon. Edward Everett, in the Mercantile Library Hall. An advanced scientific class was organized at that time. An Academy, now known as Smith Academy, had then been in operation about three years. The College and Mary Institute were organized in 1859, and the first Senior Class was graduated from the College in June, 1862. The Law School was organized in 1867, the Polytechnic School, now known as the School of Engineering, in 1870, the School of Fine Arts and the Manual Training in 1879, the School of Botany in 1885. The St. Louis Medical College, founded in 1842, was admitted as a department of the University in 1891, and the Missouri Dental College in 1892. In 1899 the Missouri Medical College, which was founded in 1840, was united to the Medical Department of this University.

To show the principle on which endowments are invited, the fifth, sixth, and seventh articles of the Constitution are here inserted.

“ ARTICLE V.

“ ENDOWMENT OF PROFESSORSHIPS.

“ Any person may endow in whole or in part a specified professorship in the said University; and if, in the opinion of the Board of Directors, said endowment shall be sufficient for the support of said professorship, said professorship shall bear the name of its founder forever, unless at the time of the endowment he shall otherwise direct.

"ARTICLE VI."**"ENDOWMENT OF DEPARTMENTS."**

"Any person may found, by an adequate endowment, a specified department in said University; provided the plan of its organization and its purposes are approved by the Board of Directors, and if said endowment shall, in the opinion of said Board, be sufficient for the perpetual support of said department, it shall bear the name of the founder thereof forever, unless he shall otherwise direct at the time of endowing the same.

"ARTICLE VII."**"SPECIFIC FUNDS."**

"All funds and property of whatever nature and description, contributed to the endowment or foundation of a professorship or department, shall forever be faithfully applied to the specific purpose for which contributed, and to no other object whatsoever, without the written consent of the donor or founder thereof, or his heirs and assigns, and also the written consent of two-thirds of the Directors first had and obtained; provided, however, that said funds and property in this article named shall never be diverted from the purposes of said University."

WASHINGTON UNIVERSITY

COMPREHENDS:

I. UNDERGRADUATE DEPARTMENT;

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

Washington Avenue and Seventeenth Street.

II. HENRY SHAW SCHOOL OF BOTANY.

1724 Washington Avenue.

III. ST. LOUIS SCHOOL OF FINE ARTS.

Nineteenth and Locust Streets.

IV. ST. LOUIS LAW SCHOOL.

1417 Locust Street.

V. ST. LOUIS AND MISSOURI MEDICAL COLLEGE.

1806 Locust Street.

VI. MISSOURI DENTAL COLLEGE.

1814 Locust Street.

The following schools have also been organized under the charter of the University: —

I. SMITH ACADEMY.

Washington Avenue and Nineteenth Street.

CHARLES P. CURD, A. M., Ph. D., Principal.

II. MARY INSTITUTE.

Locust and Beaumont Streets.

EDMUND H. SEARS, A. M., Principal.

III. MANUAL TRAINING SCHOOL.

Washington Avenue and Eighteenth Street.

CALVIN M. WOODWARD, Ph. D., Director.

For particulars in regard to these schools see special catalogues, to be had on application to the Principals or Director.

UNDERGRADUATE DEPARTMENT.

THE COLLEGE.

THE SCHOOL OF ENGINEERING.

REMOVAL TO THE NEW SITE.

The Undergraduate Department of the University, which includes the College and the School of Engineering, will in the near future be removed to its new site immediately north and west of Forest Park, which contains one hundred fifty-three acres of land, admirably adapted to University purposes. The cost of the land, about \$350,000, was subscribed by generous citizens of St. Louis.

The new buildings will be as follows: A hall which will include the administration offices of the University and such subjects of instruction as do not require laboratories, to cost \$200,000, the gift of Mr. Robert S. Brookings; two buildings for the engineering departments, civil, mechanical and electrical, together with architecture, to cost \$250,000, the gift of Mr. Samuel Cupples; a building devoted to chemistry to cost \$100,000, the gift of Mr. Adolphus Busch; and a dormitory to cost \$100,000, the gift of Mrs. John E. Liggett. The Board also holds the gifts of the late Mr. Stephen Ridgley, amounting now to about \$100,000, which are to be expended in the construction and maintenance of a library building. Work on these buildings has already begun and they will be completed and equipped as soon as possible. It is reasonably certain that they will be ready for occupancy by September, 1901.

UNDERGRADUATE DEPARTMENT.

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

WINFIELD S. CHAPLIN,
Chancellor.

PROFESSORS.

SYLVESTER WATERHOUSE,
Professor of Greek.

CALVIN M. WOODWARD,
Professor of Mathematics and Applied Mechanics.

GEORGE E. JACKSON,
Professor of Latin.

MARSHALL S. SNOW.
Professor of History and Dean of College.

FRANCIS E. NIPHER,
Professor of Physics.

EDMUND A. ENGLER,
Professor of Mathematics and Descriptive Geometry and Dean of the School of Engineering.

Professor of Mathematics and Astronomy.

WILLIAM TRELEÄSE,
Professor of Botany.

JAMES MAIN DIXON,
Professor of English.

OTTO HELLER,
Professor of German.

JOHN H. KINEALY,
Professor of Mechanical Engineering.

EDWARD H. KEISER,
Professor of Chemistry.

JOHN LANE VAN ORNUM,
Professor of Civil Engineering.

GUSTAV HAMBACH,
Adjunct Professor of Geology.

INSTRUCTORS.

HOLMES SMITH,
Instructor in Drawing.

GASTON DOUAY,
Instructor in French.

HERMAN VON SCHRENK,
Instructor in Botany.

ROBERT F. HOXIE,
Instructor in Economics.

GELLERT ALLEMAN,
Instructor in Chemistry.

ALEXANDER S. LANGSDORF,
Instructor in Physics.

HERBERT F. ROBERTS,
Instructor in Botany.

WILLIAM H. ROEVER,
Instructor in Astronomy.

STUDENTS.

SENIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Burgess, Samuel Allen . . .	Arts . . .	2933 Harper st.
Chandler, Albert Barbour . . .	Arts . . .	Kirkwood, Mo.
Dicke, Edward Christian . . .	Civ. Eng. . .	1911 Hebert st.
Eilers, Roy Matthew . . .	Arts . . .	1616 King's Highway.
Faruham, Anna May . . .	Arts . . .	2943 Thomas st.
Goebel, Julius Christian . . .	Arts . . .	1215 S. 14th st.
Grimm, Henry England . . .	Civ. Eng. . .	3218 Eads av.
Henby, William Hastings . . .	Civ. Eng. . .	3400 Morgan st.
Horwitz, Alexander Earle . . .	Arts . . .	1323 Carr st.
Kammerer, Alfred Louis . . .	Chem. . .	2724 Dayton st.
Klem, Mary Jeanette . . .	Arts . . .	1940 Arsenal st.
Koken, Ernest C. F. . . .	Civ. Eng. . .	3522 Hawthorne boul.
Leavitt, Sherman	Chem. . .	5515 Cabanne pl.
Lewis, John James	Arts . . .	Webster Groves, Mo
McClure, Ralph Stanton . . .	Civ. Eng. . .	6814 Smiley av.
Merner, Blanche	Arts . . .	3968 Finney av.
Phillips, Silas Bent	Chem. . .	4442 Morgan st.
Pierson, Ruth Howard	Arts . . .	1211 N. Garrison av.
Ritschy, Lewis John	Mech. Eng. . .	2858 Henrietta st.
Schmedtje, Adolph Henry . . .	Chem. . .	2337 S. 18th st.
Steinbreder, Alvina Louisa . . .	Arts . . .	5043 Vernon av.
Stokes, Victor Hugo	Civ. Eng. . .	Tecumseh, Mich.
Toensfeldt, Hans Carl	Civ. Eng. . .	912 S. 9th st.
Trall, Mary Wilson	Arts . . .	3513 Laclede av.
Wesseler, William Julius . . .	Arts . . .	2819 S. 13th st.
		Total, 25.

JUNIOR CLASS.

Alt, Arnold Dettman	Arts . . .	3819 West Pine boul.
Baumgarten, Karl	Arts . . .	2643 Chestnut st.
Bennett, Maud Warne	Arts . . .	2903 Dickson st.
Black, Gurdon Gilmore . . .	Civ. Eng. . .	Clayton, Mo.

NAMES.	COURSE.	RESIDENCE.
Brown, Mabel Wolcott	Arts	1332 N. King's Highw.
Bryan, Grace	Arts	3746 Windsor pl.
Chamberlin, Caroline	Atts	3119 Lucas av.
Crecelius, Florence Lesette	Arts	1110 Dillon st.
Cummings, Ruth Rozelle	Arts	3514 Olive st.
Eilers, Ralph	Arts	4935 Easton av.
Erskine, Lucille	Arts	4975 Wabada av.
Flickner, Martha Ver Bryck	Arts	2200 Salisbury st.
Fulhage, Louise	Arts	1709 Chouteau av.
Glasgow, Carr Lane	Arts	2847 Washington av.
Glasgow, William Ross	Civ. Eng.	2847 Washington av.
Greensfelder, Albert Preston.	Civ. Eng.	Central, Mo.
Griffin, Everett Paul	Arts	2842 W. Chestnut st.
Harting, Otto Frederick	Civ. Eng.	2705 N. 11th st.
Haydock, Daniel Winters	Arts	Normandy, Mo.
Hudson, Marjorie Hannah	Arts	1820 O'Fallon st.
Judd, Nellie	Arts	4323 Morgan st.
Lyon, Dora Laurina	Arts	4415 Kennerly av.
Miller, Jeanette Charlotte	Arts	3628 Cass av.
Mueller, Laura Carolyn	Arts	5058 Kensington av.
Olmstead, Mabel	Arts	4348 Garfield av.
Senseney, Eugene Towner	Arts	2829 Washington av.
Vegely, Norman Oscar	Civ. Eng.	St. Joseph, Mo.
Wiederholdt, Ernest Ferdinand Mech. Eng.	Mech. Eng.	1211 Morrison av.

Total, 28.

SOPHOMORE CLASS.

Battle, Anita Frances	3714 Stoddard st.
Carter, Edwin Farnham	4929 Lotus av.
Champlin, Edith Marie	3510a Bell av.
Cutts, Francis Thacher	3887 Washington boul.
Dawes, Henry Arthur	4322 Prairie av.
Feuerbacher, Max William	1126 Sidney st.
Flanigan, Blanche	5019 Raymond av.
Forder, Samuel Walker	S. St. Louis.
Freeman, Mary Louise	5347 Bartmer av.

NAMES.	RESIDENCE.
Gladfelter, Edith Ednah	4720 N. 20th st.
Jacobs, Max William	2307 S. 9th st.
Kelleter, Paul Delmar	3114 Illinois av.
Muench, Alice Frances	3117 Longfellow boul.
Murphy, Robert Lincoln	2900 St. Vincent av.
Parker, George Ward	3405 Oak Hill av.
Pollard, Harry Moses	3015 Washington av.
Schade, Florence Garrell	2221 Benton st.
Scheel, Frederick Engelmann	Belleville, Ill.
Shahan, William Ewing	Attalla, Ala.
Stephens, Joseph Lafayette	1611 Missouri av.
Swift, Charlotte Bradshaw	3507 Washington av.
Tlittmann, Alice Fabian	2732 Russell av.
Wiener, Sara Elizabeth	3854 Westminster pl.
Williams, Joseph A.	4280 Page av.
Wood, Eulalie	3429 Texas av.

Total, 25.

FRESHMAN CLASS.

Anderson, Alvan Jennings	3858 Windsor pl.
Aymond, Anne Corinne	St. Charles, Mo.
Black, Albert Eugene	2800 Caroline av.
Black, Dudley Frank	Kansas City, Mo.
Bond, Thomas	3744 Washington av.
Bratney, John Frederick	1724 Preston pl.
Brey, William Wilson	3429 Bell av.
Coddling, Frank Souther	4526 Page boul.
Curtis, Edward Glion	2140 Lafayette av.
Denton, Francis Douglas	5404 Maple av.
Devoy, Charles Louis	3111 Laclede av.
Drabelle, Hirschel John	4524 McPherson av.
Funkhouser, Robert	3534 Olive st.
Glasgow, Clemens Englesing	2847 Washington av.
Harrison, Edward Sterne	3747 Westminster pl.
Hoff, Harold Heilman	1728 Wagoner pl.
Hudson, Ione Harriet	1820 O'Fallon st.

NAME.	RESIDENCE.
Hunt, Jennie Ida	74 Vandeventer pl.
Hunter, George Bowditch	Jeff'sn Barracks, Mo.
Huse, Mary	4047 West Belle pl.
Irvin, Leslie Arthur	4135 Westminster pl.
Martin, James Samuel	5620 Minnesota av.
Mitchell, Clara Fanita	Kirkwood, Mo.
Neun, Walter John George	3652 Blaine av.
Samuel, Newman	3407 Washington av.
Schantl, Hans	914 S. 4th st.
Sessinghaus, Eugene Frederick	2901 Rauschenbach av.
Snow, Roger Don	4171 Shenandoah av.
Steidemann, Oscar Franklin	4110 N. 11th st.
Stevens, Benjamin Chandler	2807 Russell av.
Stoffregen, Otto Garfield	3514 Hawthorne boul.
Tarlton, George Locke	East St. Louis, Ill.
Tittman, George Fabian	2732 Russell av.
Wagner, Edward Carl, Jr.	2724 S. 13th st.
Weber, Kossuth Cayce	4008 Delmar boul.
Weidmann, William Christopher	Belleville, Ill.
Weinrich, Morris Frank	1736 Waverly pl.
Whlte, Phillip Ben	Kirkwood, Mo.
Wilderman, Eunice Emma	Belleville, Ill.
	Total, 39.

CANDIDATES FOR DEGREES NOT CLASSIFIED.

Armstrong, Fred, Jr.,	3519 Clark av.
Bischoff, Julius Montgomery	2714 Russell av.
Droste, Henry	1828 N. Jefferson av.
Golsan, Leila Belle	4008 Delmar boul.
Hellmuth, Edgar Philip	3107 Brantner pl.
Kammerer, Edward Charles	2724 Dayton st.
Stuart, Emma Lyall	5346 Maple av.
Terry, Robert James, M. D.	2726 Washington av.
Thornton, Frances Roberta	3688 Laclede av.
Ziemer, Otto	Marystown, Ill.
	Total, 10.

SPECIAL STUDENTS.

NAMES.	RESIDENCE.
Adams, Amanda McCormick	Webster Groves, Mo.
Ahrens, Leo	O'Fallon, Mo.
Avery, Ethel	Webster Groves, Mo.
Avis, Mabel Dean, A. B., 1899	4115 Delmar av.
Bartlett, Roy	3021 Eads av.
Beckwith, Forrest Putnam	1612 St. Louis av.
Bedinger, Maria Voorhees	3940 Delmar boul.
Branch, Anna Lane, A. B., 1895	4314 Washington boul.
Carroll, Agnes Marguerite	3521 Cook av.
Chaplin, Susan Elizabeth, A. B., 1897	3636 W. Pine boul.
Clark, Ellen C	2730 Pine st.
Clute, Marion Morrill	4808 Hammett pl.
Cochran, Ella A.	7 Westmoreland pl.
Eberle, Grace Amelia	4119 Cleveland av.
Ellis, Ethel Lydia	2743 Morgan st.
Friedman, Irma	Grand Av. Hotel.
Fulks, Elbridge Byron	California, Mo.
Goldstein, Carrie Ernestine	4060 Washington boul.
Hart, William Augustus	19 Portland pl.
Huse, Ione A.	9 Westmoreland pl.
Kennard, Sa Lees	4 Portland pl.
Lang, George, Jr.	2920 Pine st.
Langsdorf, Alexander Suss, B. S., 1898	3133 Laclede av.
Lee, Wayne	3114 Washington av.
Levy, Maurice Frank	4452 Washington boul.
Long, Lyda	1122 Leonard av.
McCarthy, Harry T.	14th and Gratiot sts.
Magill, Frank H.	1131 N. 18th st.
Maguire, May Josephine	28 Benton pl.
Menne, Laura Estelle	4387 W. Pine boul.
Mohr, Rudolph J.	Omaha, Neb.
Moses, Edith Winifred	5710 Clemens av.
Nipher, Mary Eugenia	3021 Dickson st.
Pike, Lillian	3877 Windsor pl.

NAMES.	RESIDENCE.
Reber, Mary Granger	4045 W. Belle pl.
Rosenberg, Blanche	5021 McPherson av.
Rosenberg, Helen	5021 McPherson av.
Runyan, Eloise	3028 Sheridan av.
Samish, Clemence Judith	4242 Lindell boul.
Schwab, Helen Hannah, A. B., 1890 .	4393 Westminster pl.
Sum, Henry Francis	4942 Laclede av.
Thal, Adele Dorothy	4184 W. Morgan st.
Tiffany, George Shepley, A. B., Harv..	
1899	72 Vandeventer pl.
Wallace, Mary Leighton	4063 Westminster pl.
Warren, William Homer, A. M., Ph. D.,	
Harv.	3719 Olive st.
Wright, Archie Tyus	3804 W. Pine boul.
	Total. 46.

CANDIDATES FOR ADVANCED DEGREES.

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Webber, Herbert J.,
 B. S., Univ. of Neb., 1889.
 A. M., Univ. of Neb., 1890. Botany . Washington, D. C.

FOR THE DEGREE OF MASTER OF ARTS.

Adams, Grace,
 A. B., Wash. Univ., 1898 . History St. Louis.
 Gilbert, Helen,
 A. B., Wash. Univ., 1897 . History St. Louis.
 Hospes, Cecilia Lizzette,
 A. B., Wash. Univ., 1896 . German St. Louis.
 Jackson, Edward Fisher,
 A. B., Wash. Univ., 1881.
 E. M., Wash. Univ., 1883 . Latin St. Louis.
 Pirscher, Charles Frederick,
 A. B., Wash. Univ., 1896 . German St. Louis.
 Wittler, William Stephen,
 A. B., Wash. Univ., 1898 . History St. Louis.

FOR THE DEGREE OF MASTER OF SCIENCE.

Langsdorf, Alexander Suss,

B. S., Wash. Univ., 1898 . . . Elec. and Mag. . . . St. Louis.

Selby, Augustine Dawson,

B. S., Ohio State Univ., 1893 Botany St. Louis.

Total, 9.

SUMMARY.

Seniors	25
Juniors	28
Sophomores	25
Freshmen	39
	117
Candidates for degrees not classified	10
Special Students	46
Candidates for Advanced Degrees	9
Total	182

COURSES OF INSTRUCTION PROVIDED IN THE UNDERGRADUATE DEPARTMENT.

GREEK.

Professor Waterhouse. Three times a week.

1. Herodotus (selections).
2. Homer (selections). Isocrates: The Panegyric.
3. Demosthenes on the Crown; Thucydides (selections).
4. Selections from the Tragedians.
5. Selections from the Tragedians.
6. Plato (selections).

LATIN.

Professor Jackson. Three times a week.

1. Livy: Second Punic War. Books XXI-XXX.
2. Horace: Odes and Epodes; Satires and Epistles (selections).
3. Cicero: Philosophical Works (selections): Letters.
4. Plautus, Terence, Juvenal (selections).
5. Tacitus: Annals and Histories (selections).
6. Suetonius; Seneca; Moral Essays; Quintilian.
7. Seneca: Tragedies; Martial: Epigrams; Lucretius.
8. Pliny: Letters; Catullus, Tibullus, Propertius (selections).

ENGLISH.

Professor Dixon.

1. The elementary laws of all writing. Canons of correct usage in language. The function of grammars and dictionaries. Analysis of sentences. English idioms — auxiliary verbs, conditional sentences, relative pronouns, etc. Literary forms — the paragraph, article, essay. The rules of letter-writing. Exercises in composition and analysis.
Three times a week.

2. Modern English prose, especially in the departments of narrative and exposition. Framing of synopses and abstracts. Exercises in journalistic paragraphs. *Three times a week.*
3. English prose from Sidney and Dryden to Arnold, Newman and Lowell. Lectures on the development of English prose. *Three times a week.*
4. Modern poetry: Keats, Tennyson, Browning. Sonnet literature. *Twice a week.*
The laws of versification, with exercises. *One hour a week.*
5. Oratory as a branch of literature. The composition of an oration. Study of Bacon's essays. *Twice a week.*
Rise and growth of the English novel. Exercises in story-writing. History of journalism and the essay. *Once a week.*
6. Shakespeare; his life and literary career; the quartos and folios. English and German editors and commentators; textual criticism. Critical reading of one play (1899, *The Winter's Tale*). Exercises in analyzing the structure of the play, and the development and interaction of the characters. *Three times a week.*
7. Spenser, Milton (1899, *Comus*), Pope, Wordsworth. *Twice a week.*
Old English grammar and composition. Lectures on philology. *Once a week.*
8. Dialect literature. Ballad literature. Chaucer and Burns. *Twice a week.*
Seventeenth century prose. *Once a week.*

GERMAN.

Professor Heller. Three times a week.

- 1-2. Elementary Courses. Accidence; Translation from German into English and from English into German; German Conversation. Reading: *Zschokke*, der zerbrochene Krug; *Fischer*, die wandelnde Glocke; *Leander*, Träumereien; *Storm*, Immense.

Prescribed for Freshmen who did not present German for admission.

- 3-4. German Syntax; Prose Composition. *Joynes-Meissner*; *v. Jagemann*, Syntax and Composition; German Conversation; Reading: *Stifter*, das Heidedorf; *Freytag*, der Rittmeister von Alt-Rosen; *Meyer*, Gustav Adolfs Page, and a short comedy.
- 5-6. Composition continued; History of German Literature from its beginning to the death of Goethe. Reading: *Lessing*, Minna von Barnhelm; *Goethe*, Hermann u. Dorothea, Iphigenie auf Tauris; *Schiller*, das Lied von der Glocke, Wallenstein; Home-Reading.
- 7-8. History of German Literature from 1832-1897. Reading: Works of *Heine*, *Auerbach*, *Geibel*, *Schesel*, *Freytag*, *Schuecking*, *Spielhagen*, *Heyse*, *Wildenbruch*, *Baumbach*, *Seidel*, *Keller*, Introduction to Seminar-work.
- 9-10. Introduction to the history of German Language (*Weise*). Middle-High German Grammar (*Paul*); Reading: *Nibelungenlied*; *Hartmann von Aue*; *Walther von der Vogelweide*; *Ulrich von Lichtenstein* (in the original).
- 11-12. The poetical works of Goethe. One term devoted to the study of *Faust*; one term devoted to the other metrical works.
- 13-14. History of German Literature. An outline course. Courses 5-14 are conducted in German. Courses 9-10 are offered primarily to students of German parentage, and are the basis of a four years' graduate course. Courses 7-8 and 11-12 are given in alternate years. Courses 9-10 and 13-14 are given in alternate years. Students who elect German 13 are advised to take History 5 at the same time.

FRENCH.

Mr. Douay. Three times a week.

1. Elementary course: Pronunciation, elementary grammar, easy colloquial French.
2. Elements of syntax. Reading and translation of French prose. A modern French comedy will be read as a part of Course 2. *Courses 1 and 2 are prescribed for Freshmen who did not present French for admission.*

3. Reading, conversation, dictation. French syntax. Translation of English into French.
 4. Reading. Conversation. Study of Idioms. Elements of French composition. Outside reading.
 - 5-6. Brief account of the development of French literature to the XVII. century. French literature of the XVII. century with illustrative readings. French essays on literary subjects.
 - 7-8. French literature of the XVIII. and XIX. centuries, with illustrative readings. French essays.
- N. B. — Courses 5-6, 7-8 are conducted in French. Recitations and lectures.

LOGIC.

Professor Dixon. Three times a week.

Province of Logic. Terms. Extension and intention; Logic and language. Propositions and their conversion; the predicate; division and definition. The Syllogism; regular, irregular, and compound conditional arguments. Fallacies and the best methods of treating them. Argument in orations and general literature.

PSYCHOLOGY.

Mr. Hoxie. Three times a week.

Elementary Psychology. A beginning course, using Höffding's *Outlines of Psychology* as text-book, with collateral reading in James's *Psychology*.

ECONOMICS.

Mr. Hoxie. Three times a week.

1. Elementary Economics. A beginning course in theory, prerequisite for all other courses, except Course 4.
2. Advanced Economics. A continuation of the study of theory, prerequisite for Courses 3, 5, 6, 7 and 8.

3. Practical Economics. A study of unsettled economic problems occupying public attention.
4. Industrial History.
5. Money and Banking.
6. Taxation, prerequisite for Course 7.
7. Financial History of the United States.
8. History of Political Economy.

HISTORY.

Professor Snow. Three times a week.

1. History of England from Henry VII. to the end of the Stuart Period.
2. History of England; Modern Period.
3. History of France under the Bourbon Kings to the Revolution.
4. The Revolution and the Empire.
5. Mediaeval Germany; The Holy Roman Empire to the Peace of Westphalia.
6. Eastern Europe since the Fall of the Western Empire.
7. Constitutional History; Constitution of the United States; Comparison of American and European Governments.
8. Elements of International Law, with Study of Treaties. *Half Course.*
9. General European History; Review and Philosophical Discussion. *Half Course.*

HISTORY OF ART.

Mr. Holmes Smith. Three times a week.

1. Ancient Art: Development of Architecture, Sculpture and Decoration in Ancient Egypt, Chaldaea, Assyria, Persia, Greece, and Rome.
2. Mediaeval Art: Early Christian Romanesque, and Gothic Art: Architecture, Sculpture, and Decoration.

Students in these courses may with advantage take Drawing I

MATHEMATICS.

Three times a week.

1. Higher Algebra. *Professor Engler.*
2. Plane and Spherical Trigonometry. *Professor Engler.*
3. Analytic Geometry. *Professor Engler.*
4. Differential Calculus. *Professor Engler.*
5. Integral Calculus. *Professor Woodward.*
6. Higher Plane Curves. *Professor Engler.*
7. Theory of Functions. *Professor Engler.*

APPLIED MECHANICS.

Professor Woodward. Three times a week.

1. Graphical Statics, Stress Diagrams for Frames, Trusses, and Bridges analyzed and drawn to scale.
2. General Principles of Statics and Dynamics with illustrative examples.
3. Rotation of Rigid Bodies. Character and distribution of Stress. Strength and Stiffness of Girders and Shafts.
4. Kinematics, Mechanism, including the general theory of transmission of energy by Gearing, Liquids, Belts, etc., with and without friction.
5. Deflection of beams and girders and the Torsion of Shafts.

PHYSICS.

1. Elementary Mechanics, including the Mechanics of Fluids.
Two lectures or recitations and two hours of laboratory work a week.
Professor Nipher and Mr. Langsdorf.
2. Heat. *Two lectures or recitations and two hours of laboratory work a week.*
Professor Nipher and Mr. Langsdorf.
3. Optics. *Two lectures or recitations and two hours of laboratory work a week.*
Professor Nipher and Mr. Langsdorf.

4. Electricity and Magnetism. *Two lectures or recitations and two hours of laboratory work a week.*
Professor Nipher and Mr. Langsdorf.
5. Laboratory instruction in Electrical Measurements, including measurement of resistances, E. M. F. of batteries, the calibration of amperemeters and voltmeters, electrolytic measurements, magnetic determinations, heating effect of currents, electrical determinations of Joule's equivalent. *Six hours a week.*
Professor Nipher.
6. Introduction to the mathematical theory of Electricity and Magnetism, including the theory of Potential; capacity of bodies; energy of electrical systems; electrometers and electrostatic voltmeters, theory of magnetic measurements, magnetic fields due to electric currents, electrical induction, theory of dynamos and electric motors, alternating currents, tri-phased systems. *Three hours a week.*
Professor Nipher.
7. Dynamo-electric Machinery, including a discussion of the theory of series, shunt and compound dynamos and motors, conditions of efficiency of dynamos and motors, conditions of economic operations, transformers and transformer systems, electric lighting stations, electric railways, power stations, and secondary batteries. *Three lectures a week.*
Professor Nipher.
8. Laboratory work in testing electrical machinery. *Three hours a week.*
Mr. Langsdorf.
9. Designing of electrical machinery. *Six hours a week.*
Mr. Langsdorf.
10. Electrical Transmission of Power and Light, and the study of the designing of machinery for specific output and economy. *Three hours a week of lectures and two hours of laboratory work.*
Mr. Langsdorf.
- 11-12. Designing of Electrical Machinery. *Six hours a week.*
Mr. Langsdorf.
- 13-14. Laboratory Work. *Six hours a week.*
Mr. Langsdorf.

CHEMISTRY.

- 1-2. General Descriptive Chemistry. Lectures and laboratory work upon the preparation and properties of the more important elements and compounds. General laws and principles of chemistry. *Two lectures and two hours of laboratory work a week.* *Professor Keiser and Dr. Alleman.*
3. Qualitative Analysis. Systematic methods of separating and detecting the bases and acids. Laboratory work. *Six hours a week.* *Dr. Alleman.*
4. Quantitative Analysis. Methods of gravimetric and volumetric analysis. Laboratory work. *Six hours a week.* *Dr. Alleman.*
- 5-6. Organic Chemistry. Lectures upon the chemistry of the carbon compounds. Preparation, properties and transformations of typical compounds. Methods of determining chemical constitution; relationships between classes of compounds. General laws and theories. *Three hours a week.* *Professor Keiser.*
- 7-8. Laboratory Work in Organic Chemistry. Preparation and study of the transformations of typical compounds. *Six or twelve hours a week.* *Professor Keiser.*
- 9-10. Advanced Quantitative Analysis. Laboratory Work. Analysis of commercial and industrial materials and products. Sanitary examinations of foods, water, etc. Gas analysis. *Six or twelve hours a week.* *Professor Keiser.*
11. Laboratory work in Physical Methods. Determination of molecular weights by the freezing point and boiling point methods. *Three hours a week.* *Dr. Alleman.*
12. Chemical Seminary. Advanced workers and Instructors meet to report upon and discuss articles in current chemical journals. *Three hours a week.* *Professor Keiser and Dr. Alleman.*
13. Mineralogy. Crystallography and the determination of minerals by means of the blowpipe. *Three hours a week.* *Dr. Alleman.*

14. Descriptive mineralogy. Lectures and laboratory work.
Three hours a week. *Dr. Alleman.*
15. Assaying. Fire assays of gold, silver and lead ores and smelting products. Laboratory work. *Six hours a week.*
Dr. Alleman.
- 16-17. Research work in Theoretical or Applied Chemistry. Investigation of some subject in pure or applied chemistry. Laboratory work and reading of original papers and memoirs. Preparation of a thesis.
Professor Kreiser.

BOTANY.

Professor Trelease and two Assistants. Three times a week.

1. Elementary Morphology and Organography, with reference to Ecology and Systematic Botany. Lectures and demonstrations.
2. Elementary Anatomy and Phanerogamic Botany. Laboratory work.
3. Synoptical Study of the Cryptogams. Laboratory work.
4. A special study of some group of Cryptogams.
5. Methods of Vegetable Histology. Laboratory work.
6. Histology and Morphology of the Higher Plants. Laboratory work.
7. A laboratory study of the minute anatomy of the lower Cryptogams.
8. Technical Microscopy of Timbers. Laboratory work. *Two hours a week.*
9. Economic Botany. Lectures and laboratory demonstrations.
- 10-11. Applied Mycology. Laboratory work.
- 12-13. Garden Botany. Laboratory study of cultivated plants, at the Botanical Garden.
- 14-15. Vegetable Physiology. Laboratory work
- 16-17. Bacteriological Technique. Laboratory work.

It is intended that course 1 shall always be followed by course 2, the two being preparatory to other electives. For the present, unless special reason to the contrary exists, courses 1

and 2 only will be given each year, the remaining electives being offered the alternate years, as follows:—

For 1899-1900.

First term, courses 1, 5, 8, 10 and 16.

Second term, courses 2, 6, 7 and 11.

For 1900-1901.

First term, courses 1, 3, 12, 14 and 16.

Second term, courses 2, 4, 9, 13, 15 and 17.

Students who have taken courses 1 and 2, or have had their equivalent elsewhere, are admitted to any of the other elementary electives which can be taken without conflict with other university work; but students who desire to equip themselves as botanists are advised to take the electives as nearly as possible in the order in which they are offered, and on the completion of the elective courses should expect to devote not less than ten hours a week through an entire year to some piece of research work, selected under the advice of the Professor of Botany.

Special post-graduate study or investigation is planned to meet the needs of students, so far as the facilities of the School of Botany and the Botanical Garden permit.

ASTRONOMY.

Mr. Roriver.

1. Descriptive Astronomy. Lectures and recitations, with occasional work at the Observatory. *Three times a week.*
2. Practical Astronomy. Applications of Astronomy in determination of Time, Latitude, Longitude and Azimuth. *Two hours recitation, two hours observatory work a week.* Special Trigonometry will be required for entrance to either of these courses.

ZOOLOGY.

Adjunct-Professor Hambach. Three times a week.

- 1-2. Lectures and laboratory demonstrations.

GEOLOGY.

Adjunct-Professor Hambach. Three times a week.

1. General Course.
- 2-3. Elementary and Systematic Geology.
- 4-5. Palaeontology.
6. Petrography.

DRAWING.

Mr. Smith.

1. Freehand Drawing in outline of groups of objects, both from the objects themselves and from memory. The accurate observation of form and its correct expression. The study of proportions and the laws of perspective involved in freehand drawing from objects.

Freehand Drawing and Shading from objects with pencil, pen and ink, and brush. The study of light and shade as a means of expressing form on a flat surface. The methods of suggesting in sketches the character of different materials. *Six hours a week.*

2. Practical Freehand Lettering for use on plates and working drawings.

Geometrical Drawing. Those problems in construction that are needed in the study of descriptive geometry, machine design, etc. *Six hours a week.*

3. Machine Drawing. The making of working drawings from actual measurement of machines and parts of machines. The making of tracings and blue prints.

Isometric Drawing from actual measurement or from sketches. In this work the drawings are line shaded.

The essentials of Linear Perspective, with problems. *Six hours a week.*

DESCRIPTIVE GEOMETRY.

Professor Engler. Three times a week.

1. General problems of points, lines and planes; single-curved, double-curved and warped surfaces.
2. Tangency, intersections, shades and shadows, linear perspective.

***SHOP WORK.**

1. Carpentry. *Three hours a week.* *Mr. Swaford.*
2. Pattern-Making and Moulding. *Three hours a week.* *Mr. Bast.*
3. Forging. *Six hours a week.* *Mr. Jones.*
4. Machine Shop Work. *Six hours a week.* *Mr. McFarlane.*

CIVIL ENGINEERING.*Professor Van Ornum.*

1. Elements of Surveying. The use and adjustment of all the ordinary surveying instruments; simple land surveying and leveling. *Two recitations a week with field practice Saturday afternoon.*
2. Topographical, Mining and Hydrographic Surveying. Topographical surveying by the transit and stadia method and also by the plane table; problems in linear surveys, in laying out simple and compound curves and turn-outs, the passing of obstructions, adjustment of curves, etc., in railroad surveying. *Two recitations a week with field practice Saturday afternoon.*
- 3-4. Surveying in the Field. *Three weeks devoted continuously to field practice.* This practice includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a system of triangulation and levels which forms a part of the work of the survey. A hydrographic survey, with locations by one of the most approved methods, is made, and a railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time and azimuth, and various other special problems are

* The instruction in this subject is given in the shops and by the instructors of the Manual Training School.

worked out practically. For this work the class goes to a suitable point at a distance from the city the Monday before the beginning of the year. A map of this survey is drawn after return from the field.

5. Higher Surveying. City, railroad and geodetic surveying, with the principles of the construction of maps and the principles governing the economic locations of railways.
Three recitations a week.
6. Drawing. To accompany Courses 3 and 5. *Six hours a week.*
7. Stereotomy. Application of Descriptive Geometry to stone cutting, including groined, cloistered and skew arches.
Three hours a week. *Professor Engler.*
8. The analysis of Stresses in Framed Structures. Analytical and graphical determinations of stresses in various styles of roof trusses, and of highway and railway bridges for distributed and concentrated, fixed and moving loads.
Three hours a week.
9. Structural Drawing. To accompany Course 8. *Six hours a week.*
10. The Designing of Framed Structures. The analysis of suspension, draw and arch bridges, and an analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs. *Three hours a week.*
11. Structural Design. To accompany Course 10, and involving complete details. *Six hours a week.*
12. Engineering Materials. A review of the principles of mechanics relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of methods of testing the strength of materials and a discussion of the essential properties of the more common materials of engineering construction.
Three hours a week.
13. Testing Laboratory Practice. Experimental tests made by the student on the strength of various kinds of engineering materials. *Six hours a week.*

14. Testing Laboratory Practice. Experimental tests made by the student on the strength of various kinds of engineering materials. For students in mechanical and electrical engineering. *Three hours a week.*
15. Masonry Structures, Tunneling and Explosives. Building foundations, retaining walls, dams, arches, chimneys, bridge piers, etc., together with the study of the materials involved. Methods of tunneling through different materials. The nature and use of explosives. *Three hours a week.*
16. Sanitary Engineering and Irrigation. The collection, storage, pumping, settling, filtering and distribution of potable waters, as modified by various conditions of supply and service. The practical designing of systems of sewerage and drainage. Methods of sewage-disposal. Modern irrigation methods, including the elements of a complete irrigation plan. *Three hours a week.*
17. Engineering Design. Supplementary to courses 10, 12, 15 and 16. *Six hours a week.*
18. Specifications and Projects.
 - (a.) The law of contracts as applied to engineering work, together with typical forms of specifications. *One hour a week.*
 - (b.) Consideration in detail of a designated engineering project by the student, with his completed plan adequately described and its scientific and economic advantages presented. *Two hours a week.*
19. Graduation Thesis. An extended study or design, involving original investigation or experiment.

MECHANICAL ENGINEERING.

Professor Kinealy.

1. Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work and trains of mechanism. *Three hours a week.*
2. Machine Designing. Study of the principles. *Three hours a week.*

3. Machine Designing and Mill Engineering. Shafting, gearing, belts and ropes, mill and factory construction. *Three hours a week.*
4. Elementary Steam Engineering. Elements of thermodynamics and the theory of the steam engine; types of engines; valves and valve diagrams; indicator cards; boilers and chimneys. *Three hours a week.*
5. Machinery Drawing. Work in the drawing-room to accompany Course 1. *Six hours a week.*
6. Machinery Drawing. Details of the steam engine; link motions and valve diagrams. *Six hours a week.*
7. Mechanical Laboratory. Standardization of instruments; oil testing. *Three hours a week.*
8. Mechanical Laboratory. Lining up and adjusting the steam engine; use of the indicator; valve setting; tests of the engine. *Three hours a week.*
9. Advanced Steam Engineering. Thermodynamics; application of thermodynamics to steam and other heat engines. *Three hours a week.*
10. Steam Engine Designing. *Three hours a week.*
11. Boiler and Chimney Designing. *Three hours a week.*
12. Heating and Ventilation. *Three hours a week.*
13. Specifications and Projects.
 - (a.) The law of contracts as applied to engineering work, together with typical forms of specifications. Taken with the students in Civil Engineering. 18 (a). *One hour a week.*
 - (b.) The study of some project in mechanical engineering. Each student will be required to solve the problem in his own way; to prepare plans and specifications in accordance with his solution; and to present an argument in support of his method of solution. *Two hours a week.*
14. Engine Designing. Work in the drawing-room to accompany Course 11. *Six hours a week.*

15. Engine Designing. Work in the drawing-room to accompany Course 11, for students in Electrical Engineering. *Three hours a week.*
16. Boiler Designing. Work in the drawing-room to accompany Course 12. *Nine hours a week.*
17. Mechanical Laboratory. Tests of the steam and gas engines. *Three hours a week.*
18. Mechanical Laboratory. Boiler tests; visits to manufacturing establishments. *Three hours a week.*
19. * Hydraulics and Hydraulic machinery. *Three hours a week.*

In addition to the above the following courses given in the Medical Department of the University are open to students in the College, and will be credited towards a medical degree for those students who enter the Medical College later.

ANATOMY.

- a.* Osteology and Syndesmology: Lectures and Laboratory Work. *Three hours a week.* *Asst. Prof. Terry.*
- b. Splanchnology and Neurology: Anatomy of the Thoracic and Abdominal Viscera, and Brain and Spinal Cord. Lectures and Demonstrations. *Three hours a week.* *Asst. Prof. Terry.*
- c. Myology, Angiology, and Neurology: Anatomy of the Muscular System, of the Circulatory System, and of the Distribution of Peripheric Nerves. Lectures and Demonstrations. *Three hours a week.* *Dr. Blair.*
- d, e. Practical Anatomy: Dissection of Typical Vertebrates and Human Dissection. *Three afternoons a week.* *Asst. Prof. Terry and Dr. Blair.*
- f, g. Special Dissections: Work arranged by the teachers in regard to the wants and predilections of the individual student. These courses can be taken only after d and e have been certified. *Three afternoons in the first term and two afternoons in the second term.* *Asst. Prof. Terry and Dr. Blair.*

* For the present year Theoretical Hydraulics will be taught by Professor Woodward.

HISTOLOGY.

- a, b. Laboratory Work with Explanatory Lectures. Six hours a week.* *Prof. Budgett.*

PHYSIOLOGY.

- a. First Half of Physiology. Lectures and Demonstrations. Three hours a week.* *Professor Budgett.*
- b. Second Half of Physiology. Lectures and Demonstrations. Three hours a week.* *Professor Budgett.*
- c. Laboratory Work in Physiological Chemistry. Four hours a week.* *Professor Budgett.*

PATHOLOGY AND BACTERIOLOGY.

- f. Lectures on Bacteriology. One hour a week.* *Professor Ravold.*
- g. Laboratory Course in Bacteriology. Four hours a week.* *Professor Ravold.*

HYGIENE.

- Lectures and Demonstrations on Hygiene and Sanitary Medicine.
Two hours a week. *Professor Ravold.*

FORENSIC MEDICINE.

- A Course of Lectures. *Three hours a week.* Comprising the following subjects: Chemistry and Detection of Poisons, by *Asst. Prof. Warren.* Symptoms and Treatment of Poisoning, by *Dr. Tuttle.* Microscopy of Blood Stains, Hair, etc., by *Prof. Budgett.* Abortions, Diagnosis of Recent Labor, Rape, etc., by *Prof. Schwarz.* Legal Aspects of Insanity, Injuries to the Nervous System, Alcoholism, Sunstroke, etc., by *Prof. Fry.* Legal Aspects of Traumatism and Surgical Injuries; Post-mortem Examinations, by *Dr. Kodis.* Medical Jurisprudence, by *Prof. Nagel.*

* The letters *a, b*, etc., refer to the announcement of courses as given in the catalogue of the Medical Department, to which students are referred for additional details.

THE COLLEGE.

ADMISSION.

Candidates for admission to the College will present themselves for examination on Monday, June 18, 1900, in room No. 8, east wing of the University Building, at 9 o'clock a. m. A second examination will be held on Tuesday, September 25, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other colleges are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.*

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals, proper construction of sentences: clearness and conciseness of expression.

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*; Shakespeare's *Merchant of Venice*; Addison's Roger de Coverley papers from *The Spectator*, Goldsmith's *Vicar of Wakefield*, George Eliot's *Silas Marner*, Longfellow's *Evangeline*, and Emerson's essays on Friendship, Manners, Compensation, History, Character.

- II. *Algebra*, including radicals and equations of the second degree.
- III. *Elementary Plane and Solid Geometry*. Wells' or Wentworth's Geometry or an equivalent.
- IV. *Latin*. Grammar, four books of Cæsar, seven orations of Cicero, and six books of the *Aeneid* of Virgil. Prose Composition.
- V. *Modern Language*. Either French or German at the option of the candidate; facility in reading ordinary prose at sight and knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.

* NOTE.—*Greek* is not required for admission; but candidates who intend to continue the study of *Greek* after admission to the College must fulfill the following requirements:—

Goodwin's *Grammar and Reader*; or *Grammar, four books of the Anabasis, and three books of the Iliad*; prose composition.

VI. History. Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools; of Greece and Rome, such as is found in Pennell's or Smith's Small Histories.

VII. Elementary Physics. Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

SPECIAL STUDENTS.

Special Students may be admitted to one or more courses in the college upon the following conditions:—

1. That evidence of proper preparation, satisfactory to the committee and to the instructors concerned, be submitted before admission to any course or courses.

2. That candidates for degrees who fail in the work of the regular courses shall not have the privilege of becoming Special Students, unless such failure shall come from physical inability to do the required work.

3. That Special Students shall not be regarded as candidates for a degree.

All matters concerning Special Students are referred to a standing committee of the Faculty, which is composed of Professors Snow, Waterhouse and Keiser. Applications should be made to Professor Snow, Chairman.

ARRANGEMENT OF STUDIES IN THE COLLEGE.

FRESHMAN YEAR.

**Prescribed Studies.*

English, Courses 1 and 2.

German, Courses 1 and 2, or French, Courses 1 and 2, for those who do not present both of these languages for admission.

Elective Studies.

In addition to the prescribed studies, every Freshman is required to take each term elective studies amounting to *three full courses*. No Freshman may elect more than one course in the same subject without the consent of the Dean.

The following courses are open to Freshmen: —

- Greek, 1, 2.
- Latin, 1, 2.
- English, 1, 2.
- German, 1, 2.
- French, 1, 2.
- History, 1, 2.
- Mathematics, 1, 2.
- Drawing, 1, 2.
- Physics, 1, 2.
- Chemistry, 1, 2.
- Botany, 1, 2.

A Freshman who is qualified to take a higher course in any study named above may do so, with the permission of the instructor in the course and the Dean of the College.

* The figures indicate the numbers of the Courses of Instruction.
See pp. 32-48.

SOPHOMORE AND JUNIOR YEARS.

The prescribed work of the Sophomore and Junior years consists of:—

English, Courses 3, 4 and 5, 6.

Besides the prescribed courses every Sophomore and every Junior is required to take each term *four elective courses*, or an equivalent amount of courses and half courses.

SENIOR YEAR.

Eight courses, all elective, are required for the Senior year.

CHOICE OF STUDIES.

Every student is required to give notice in writing to the Dean of the College on the first day of each term of his choice of studies for that term.

Changes may be made only by permission of the Dean, to whom application must be made in writing, with a full statement of reasons.

No student will be allowed to elect any course for which his previous training has not fully prepared him.

REQUIREMENT FOR THE DEGREE OF BACHELOR OF ARTS.

The satisfactory completion of thirty-eight courses of one term each, with three recitations a week (or their equivalent), is necessary to fulfill the requirements for the degree of Bachelor of Arts.

THE SCHOOL OF ENGINEERING.

ADMISSION.

Candidates for admission to the School of Engineering will present themselves for examination on Monday, June 18, 1900, in room No. 8, east wing of the University Building, at 9 o'clock a. m. A second examination will be held on Tuesday, September 25, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other institutions are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression.

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*, Shakespeare's *Merchant of Venice*, Addison's *Roger de Coverly* papers from *The Spectator*, Goldsmith's *Vicar of Wakefield*, George Eliot's *Silas Marner*, Longfellow's *Evangeline*, and Emerson's essays on Friendship, Manners, Compensation, History, Character.

- II. *Algebra*, including radicals and equations of the second degree.
- III. *Elementary Plane and Solid Geometry.* Wells' or Wentworth's Geometry or an equivalent.
- IV. *Modern Language.** Either *a*, *b*, *c*, or *d*.

a. FRENCH. Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into French.

b. GERMAN. Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into German.

* It is assumed that a thorough course in any one of these languages extending over two years of, say, thirty-five weeks, each three hours a week, or its equivalent, will be sufficient to prepare a candidate to meet the above requirement.

c. SPANISH. Facility in reading ordinary prose at sight, and a knowledge of elementary grammar as shown by the ability to translate easy sentences from English into Spanish.

d. LATIN. In place of a modern language, an acquaintance with Latin acquired by two years' successful study will be accepted. This should comprise: First, in grammar, a good knowledge of etymology and syntax, special attention being given to inflections and the construction of cases and moods; second, the translation of four books of Caesar or equal amounts of such equivalents as Nepos and Sallust. Reading of easy Latin at sight may be substituted for two books of Caesar.

V. *History.* Of the United States and of England such as is found in any text-book on history intended for the use of preparatory schools.

N. B.—In place of the work in the History of England, an equivalent amount of work in the history of some other country, in Ancient History, or in General History will be accepted.

VI. *Elementary Physics.* Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-book of Physics."

ARRANGEMENT OF STUDIES IN THE SCHOOL OF ENGINEERING.

The courses of study in the School of Engineering are five in number: —

- I. CIVIL ENGINEERING.**
- II. MECHANICAL ENGINEERING.**
- III. ELECTRICAL ENGINEERING.**
- IV. CHEMISTRY.**
- V. SCIENCE AND LITERATURE.**

*FRESHMAN YEAR.

The same for all Courses.

FIRST TERM.

English, 1. [†]	Mathematics, 1.
German, 1 or } **	Physics, 1.
French, 1 }	Chemistry, 1.
History, 1.	Drawing, 1.

SECOND TERM.

English, 2.	Mathematics, 2.
German, 2 or }	Physics, 2.
French, 2 }	Chemistry, 2.
History, 2.	Drawing, 2.

* In the School of Engineering all the studies for each course are prescribed; there is no choice except as indicated.

** German is required of those who present French for admission; French of those who present German.

† The figures indicate the numbers of the Courses of Instruction. See pp. 32-48.

SOPHOMORE YEAR.

The same for All Courses.

FIRST TERM.

German, 3 or }	Chemistry, 3.
French, 3 }	Drawing, 3.
Mathematics, 3.	Descriptive Geometry, 1.
Physics 3.	Civil Engineering, 1.

SECOND TERM.

Mathematics, 4.	Geology, 1.
Mechanics, 1.	Descriptive Geometry, 2.
Physics, 4.	Civil Engineering, 2.
Chemistry, 4.	

N. B.—In addition to the above, shop work 1-2 (3 hours a week) is required of students who have not had shop work before admission.

I. CIVIL ENGINEERING.

FRESHMAN AND SOPHOMORE YEARS.

(See above.)

JUNIOR YEAR.

FIRST TERM.

Mathematics, 5.	Civil Engineering, 3.
Mechanics, 2.	Civil Engineering, 5.
Physics, 5.	Civil Engineering, 6.
Botany, 8.	Civil Engineering, 7.

SECOND TERM.

Mechanics, 3.	Civil Engineering, 9.
Physics, 6.	Civil Engineering, 12.
Mechanical Engineering, 4.	Civil Engineering, 13.
Civil Engineering, 8.	

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Civil Engineering, 4.
Mechanical Engineering, 9.	Civil Engineering, 10.
Astronomy, 1.	Civil Engineering, 11.
Economics, 1.	Botany, 16.

SECOND TERM.

Mechanics, 5.	Civil Engineering, 16.
Astronomy, 2.	Civil Engineering, 17.
Civil Engineering, 15.	Civil Engineering, 18.
Civil Engineering, 19.	

II. MECHANICAL ENGINEERING

AND

III. ELECTRICAL ENGINEERING.

FRESHMAN AND SOPHOMORE YEARS.

(See p. 57.)

JUNIOR YEAR.

FIRST TERM.

Mathematics, 5.	Mechanical Engineering, 1.
Mechanics, 2.	Mechanical Engineering, 2.
Physics, 5.	Mechanical Engineering, 5.
Civil Engineering, 3.	Mechanical Engineering, 7.

N. B. — Students who have not had instruction in Shop work before admission are required to omit Mechanical Engineering 7, and for a part of Mechanical Engineering 5 to substitute Shop-work 3.

SECOND TERM.

Mechanics, 3.	Mechanical Engineering, 3.
Physics, 6.	Mechanical Engineering, 4.
Civil Engineering, 12.	Mechanical Engineering, 6.
Civil Engineering, 14.	Mechanical Engineering, 8.

N. B. — Students who have not had instruction in Shop work before admission are required to substitute Shop work 4 for Civil Engineering 14.

II. MECHANICAL ENGINEERING.

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Mechanical Engineering, 9.
Mechanical Engineering, 19.	Mechanical Engineering, 10.
Physics, 7.	Mechanical Engineering, 14.
Physics, 8.	Mechanical Engineering, 17.

SECOND TERM.

Mechanics, 5.	Mechanical Engineering, 13.
Civil Engineering, 18.	Mechanical Engineering, 16.
Mechanical Engineering, 11.	Mechanical Engineering, 18.
Mechanical Engineering, 12.	Thesis.

N. B.— Students who have not had instruction in Shop work before admission are required to take Civil Engineering 14, in addition to the above.

III. ELECTRICAL ENGINEERING.

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Mechanical Engineering, 19.
Physics, 7.	Mechanical Engineering, 9.
Physics 8.	Mechanical Engineering, 10.
Physics, 9.	Mechanical Engineering, 15.

SECOND TERM.

Mechanics, 5.	Mechanical Engineering, 11.
Physics, 10.	Mechanical Engineering, 12.
Physics, 12.	Thesis.
Physics, 14.	

N. B.— Students who have not had instruction in Shop work before admission are required to take Civil Engineering 14 in addition to the above.

IV. CHEMISTRY.**FRESHMAN AND SOPHOMORE YEARS.**

(See p. 57.)

JUNIOR YEAR.**FIRST TERM.**

Mathematics, 5.	Chemistry, 7.
Mechanics, 2.	Chemistry, 13.
Chemistry, 5.	Botany, 1.
Physics, 5.	

SECOND TERM.

Mechanics, 3.	Chemistry, 14.
Physics, 6.	Chemistry, 15.
Chemistry, 6.	Mechanical Engineering, 4.
Chemistry, 8.	

SECOND YEAR.**FIRST TERM.**

Physics, 7.	Chemistry, 11.
Chemistry, 9.	Botany, 16.
Chemistry, 16.	

SECOND TERM.

Chemistry, 10.	Botany, 17.
Chemistry, 12.	Thesis.
Chemistry, 17.	

V. SCIENCE AND LITERATURE.**FRESHMAN AND SOPHOMORE YEARS.**

(See p. 57.)

JUNIOR YEAR.

The work of the Junior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

SENIOR YEAR.

The work of the Senior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

COURSE IN ARCHITECTURE.

A four-years' course in Architecture will be added to the curriculum of the School of Engineering in September, 1901. This course will be open to all students who enter the School of Engineering in or after September, 1900. Details of the course will be published in a subsequent edition of this catalogue.

APPLIANCES IN CIVIL ENGINEERING.

Surveying Instruments. — The equipment includes three transits for ordinary field work, one altazimuth instrument for triangulation and astronomical work, reading to ten seconds of arc on both horizontal and vertical circles, two engineers' levels, two needle compasses, one sextant, one plane table, one 300-foot steel tape standardized, with all the necessary accompanying apparatus for field and office work, such as stadia rods, level rods, stadia slide rules, chains, tapes, signals, protractors, parallel rules, etc.

There is also a complete mining transit, adapted to the use of the stadia, which may be used for topographical work if required.

Library, Models, and Drawings. — There is a well selected working library accessible to students which they consult freely on assigned topics. There is also a large assortment of drawings of the most interesting engineering and architectural structures at home and abroad. Many photographs and blue prints have been collected illustrating all the more common styles of bridges with their details.

The Testing Laboratory. — The facilities in the testing laboratory are very complete. A floor space of about 2,400 square feet is occupied with the following appliances: Two Riehle universal testing machines with a capacity of 100,000 lbs. and 20,000 lbs. respectively; a beam testing machine, with a capacity of 100,000 lbs. on a length of 24 feet; two beam testing machines with a capacity of 6,000 lbs. on a length of five feet with micrometer deflection measuring apparatus; a column testing machine with capacity of 1,000,000 lbs. on a length of 36 ft. or less; cement testing machines of the Fairbanks, the Riehle, and the Olsen types; a complete standard set of German briquet making and testing machines and scales, with pounding apparatus; an extensometer apparatus reading to ten thousandths of an inch; one eight-horse-power steam engine; one five-horse-power dynamo; one planer and one lathe for iron work; one wood planer, one band saw, and one cutting off circular saw for shaping timber specimens; two drying ovens and three sets of scales; a dry kiln with steam coil and exhaust fan for drying lumber; complete sets of bench and carpenter's tools, standard gauges, scales, etc.

APPLIANCES IN MECHANICAL ENGINEERING.

Drawings and photographs illustrating the best practice in all branches of mechanical engineering, including a number of drawings of the machinery of ships for the U. S. Navy, and examples of the best practice in the construction of locomotives, stationary engines, and machine tools are provided. Students have access to

a small but modern and carefully selected technical library, and to a number of the best technical journals.

The laboratory contains a steam engine, a Westinghouse air compressor, a Bogart gas and gasoline engine, a Carpenter steam calorimeter, a pair of Crosby indicators, a planimeter, a tachometer, a Thompson coal calorimeter, a pryometer, a complete set of apparatus for testing lubricants, a standard gas meter, a standard test gauge, a Prony brake, thermometers, revolution counters, and such tools as are necessary.

Students have access to the shops of the Manual Training School, in which they receive a training in the use and care of metal and wood working tools and machinery.

APPLIANCES IN ELECTRICAL ENGINEERING.

The Electrical Engineering Laboratory contains a high speed Buckeye Engine of twenty horse-power; two Gramme dynamos, the one being a series and the other a shunt-wound machine; smaller motors of various types; voltmeters, amperemeters and galvanometers of various types and capacities; a Brackett cradle-ergometer, upon which one dynamo is mounted, and by which the power applied to it can be measured; a Wheatstone bridge; a Prony brake; a Siemens electro-dynamometer; a mercury column fifty feet in height, which is arranged for testing steam gauges and indicator springs at any temperature, and a compression air pump capable of working to twenty atmospheres.

The rooms are wired conveniently for practical meas-

urements upon the electric plant, and for the measurement of candle power of lamps. The alternating current from the public mains of the Missouri-Edison Electric Light and Power Company is carried to the laboratory switchboard, and is thus available for experimental work.

LECTURE FOUNDATIONS.

A Lecture Endowment Fund, amounting to \$27,000, was created in 1875, by one of the early friends of the University, Mr. William Henry Smith. It was given without any restrictions, except that the fund should be increased, if practicable, by accruing interest, to \$30,000, which has been accomplished, and that no part of the principal should be expended.

The beginning of a fund for the encouragement of the study of American History has been made by a gift of \$15,000 by Mrs. Mary Hemenway of Boston, Massachusetts.

Upon this foundation a *University Professorship of American History* has been established, and the chair was filled in 1884 by the appointment of Dr. John Fiske, of Cambridge, Mass.

LIBRARY AND READING ROOM.

Necessary books of reference are provided, and also a good selection of periodical literature. No attempt is made at present to gather a general library. During the year 1880 a gift of about three thousand volumes was received from the family of the late Joseph Coolidge, of Boston. The collection, known as the Coolidge Library, is especially rich in excellent editions of Italian and

French authors, and is a very material addition to the usefulness of the library.

Through the liberality of a number of citizens of St. Louis an arrangement has been made by which the privilege of using the Mercantile Library has been extended, under prescribed conditions, to such members of the University as may be designated by the Chancellor.

GYMNASIUM.

A gymnasium for the use of the Undergraduate Department is supplied with all necessary apparatus. While encouraging systematic and wholesome exercise, the University does not wish to foster undue interest in the feats of athletes, and discourages exercises which involve personal risk to the performers. All class exercises are conducted by a professional instructor.

SCHOLARSHIPS.

One perpetual scholarship, founded by the payment of \$5,000 and entitling the holder to all the advantages of all the departments of the University forever, has been placed at the disposal of the Mercantile Library Association, with the recommendation "that when the applicants for scholarship are of equal merit, the preference shall be given to one for some mechanical pursuit."

One scholarship is also held by the St. Louis High School, which entitles the ranking student of the graduating class of each year to free admission to the Undergraduate Department, in accordance with a resolution of the Board of Directors when the College was organized.

One scholarship is also held by the School Board of

Kansas City for the benefit of the graduates of the Kansas City High School. This scholarship entitles the holder (who is to be selected by the School Board) to free tuition in the College or the School of Engineering. Reports of the standing of the student will be made to said Board annually by the Dean.

A trust fund of \$30,000 has been accepted by the University from the WESTERN SANITARY COMMISSION, for the establishment of TWENTY FREE SCHOLARSHIPS in the Undergraduate Department, to be filled by children or descendants of Union soldiers who served in the late civil war. In default of such applicants, candidates will be appointed by the Chancellor of the University with the advice of the Faculty. Preference is given to those in straitened circumstances, *and no student is accepted or continued who is not of good moral character, who does not sustain satisfactory examinations, or who fails to comply with the rules of the University.*

From the same source a SUSTENTATION FUND of \$10,000 has been accepted, the income of which is expended in aid of students in straitened circumstances, giving preference always to the descendants of Union soldiers, as above.

EXAMINATIONS.

The examinations in the Undergraduate Department are frequent and rigid. No promotions to higher classes are made except upon conclusive evidence that the antecedent subjects have been well mastered. Reports of the standing of individual students will be made by the Deans to parents or guardians, if such are requested.

DEGREES IN THE UNDERGRADUATE DEPARTMENT.

I. IN THE COLLEGE.

The degree of *Bachelor of Arts* is conferred upon the satisfactory completion of the requisite number of courses.

II. IN THE SCHOOL OF ENGINEERING.

1. On the satisfactory completion of four years' work the degree of *Bachelor of Science* is conferred.

2. The professional degrees of *Civil Engineer*, *Mechanical Engineer* and *Electrical Engineer* are conferred only after three or more years of actual and successful engineering practice, one year of which must have been spent in responsible charge of engineering work, and the presentation of an acceptable thesis; both the thesis and the experience to be such as to show an ability to design and execute engineering work.

The Bachelor degrees are in three grades indicated by the words *cum laude*, *magna cum laude* and *summa cum laude*, respectively.

Every member of the graduating class who has attained *ninety per cent* of the maximum mark on the general scale for the four years may be recommended for a degree *summa cum laude*.

Every member of the graduating class (not recommended for the degree of *summa cum laude*) who has

attained *eighty-five per cent* of the maximum mark on the general scale for the four years may be recommended for a degree *magna cum laude*.

Every member of the graduating class (not recommended for a degree of *summa* or *magna cum laude*) who has attained *eighty per cent* on the general scale for the four years may be recommended for a degree *cum laude*.

No student will be recommended for a degree who has not passed all his examinations successfully and handed in such projects or theses as may be required.

The diploma fee is three dollars, payable in advance.

ADVANCED DEGREES.

The degree of *Master of Arts*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Arts.

The degree of *Master of Science*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Science, of Civil Engineer, of Mechanical Engineer, of Electrical Engineer, of Engineer of Mines, or of Chemist.

The degree of *Doctor of Philosophy*, which is granted after not less than two years of residence and study (the two years of residence and study may include the year of preparation for the Master's degree), is open to all who have received the degree of Master from this University.

The degrees of Master of Arts, Master of Science, and Doctor of Philosophy are open to graduates of other

institutions who shall have satisfied the Committee on Advanced Degrees of their fitness.

Applications for candidacy for the degree of Master of Arts, Master of Science, or Doctor of Philosophy are referred to a committee of five members of the Faculty of the Undergraduate Department, annually appointed, known as the *Committee on Advanced Degrees*.

The Committee decides upon the admission of the candidate; determines the course of study which the candidate is to pursue; determines by examination, thesis, or both, whether a candidate is suitably prepared for the degree; and recommends the granting of the degree to the Faculty of the Undergraduate Department.

REQUIREMENTS FOR THE MASTER'S DEGREE.

- a. At least one year of residence and study.
- b. Every candidate must pass such written examinations as the Committee on Advanced Degrees may see fit to prescribe.
- c. In addition to the work specified in each case, every candidate shall present a satisfactory thesis, which must be submitted not later than May 1 of the year in which the degree is to be conferred.

REQUIREMENTS FOR THE DOCTOR'S DEGREE.

- a. Two years of residence and study.
- b. Every candidate must satisfy the Committee on Advanced Degrees that he has a reading knowledge of French and German.

c. Every candidate shall present an acceptable thesis, which shall be the result of original investigation. This thesis must be presented not later than April 1 of the year in which the degree is to be conferred; and every candidate must furnish the Committee on Advanced Degrees with 200 printed copies of his thesis, after its acceptance, before he can be recommended for the degree.

FEES.

Every candidate for the Master's degree is required to pay fifty dollars, and every candidate for the Doctor's degree one hundred dollars; one half to be paid as a condition of admission to candidacy, and the remainder before the conferring of the degree.

The diploma fee is five dollars, payable in advance.

COMMITTEE ON ADVANCED DEGREES FOR 1899-1900.

The following members of the Faculty constitute the Committee for 1899-1900; Professors Snow (chairman), Nipher (secretary), Engler, Heller, and Keiser.

TUITION.

Tuition in the Undergraduate Department for students in full standing is \$150 a year, payable semi-annually, in advance if required, and always before the middle of the term.

A matriculation fee of five dollars, payable in advance, is required of all candidates for degrees.

Tuition for special students is \$15.00 for each course.

BOARD AND LODGING.

Students living at a distance from the University have no difficulty in securing rooms and board at reasonable rates. The yearly expenses may range between the following estimates, according to taste and habits of economy :—

Tuition	\$150 00 — \$150 00
Board, lodging, and washing, 9 months . .	200 00 to 300 00
Books and instruments	10 00 " 20 00
Incidentals	15 00 " 30 00
Total for one year	<u>\$375 00 to \$500 00</u>

Books and instruments may be obtained at cost from the *Co-operative Association*, organized and managed by the students of this Department.

HENRY SHAW SCHOOL OF BOTANY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

HENRY SHAW SCHOOL OF BOTANY.

ESTABLISHED JUNE 8, 1885.

ADVISORY COMMITTEE.

THE CHANCELLOR OF THE UNIVERSITY, *ex officio*.

WILLIAM G. FARLOW, M. D.

GEO. J. ENGELMANN, M. D.

GEORGE E. LEIGHTON.

WILLIAM L. HUSE.

INSTRUCTORS.

WILLIAM TRELEASE.

DIRECTOR AND

ENGELMANN PROFESSOR OF BOTANY.

HERMANN VON SCHRENK,
INSTRUCTOR IN CRYPTOGAMIC BOTANY.

HERBERT F. ROBERTS,
GENERAL INSTRUCTOR.

ELLEN C. CLARK,
ASSISTANT AT THE MARY INSTITUTE.

GENERAL INFORMATION.

In June, 1885, Mr. Henry Shaw, of St. Louis, authorized the Chancellor of the University to place before the Board of Directors a plan of action for the establishment of a School of Botany, as follows: —

That he proposed, with the concurrence of the Directors, to endow a SCHOOL OF BOTANY as a department of Washington University, by donation of improved real estate, yielding over \$5,000 revenue, and to place it in such relation with the largely endowed Missouri Botanical Garden and Arboretum, as would practically secure their best uses, for scientific study and investigation, to the professor and students of the said School of Botany, in all time to come.

At the meeting of the Board of Directors held June 8, 1885, the following resolutions were, therefore, offered, in grateful acceptance of Mr. Shaw's proposal: —

1. That a School of Botany be established as a special department of Washington University, to be known as the Henry Shaw School of Botany.
2. That a professorship of Botany be therein established, to be known as the Engelmann Professorship.
3. That Professor Wm. Trelease, of the University of Wisconsin, be invited to fill the same; his duties to begin at the commencement of the next academic year, September 17.
4. That said School of Botany be placed under the special care and direction of an advisory committee, to consist of five members, of whom two shall be members of this Board, and two shall be selected outside of the Board — the Chancellor of the University being a member *ex officio*.

This report was accepted and the resolutions unanimously adopted. The record of such action was then submitted to Mr. Shaw and approved by him.

On this foundation, the School of Botany was opened in the autumn of 1885. In his will admitted to probate in 1889, Mr. Shaw further provided for the maintenance of the income of the School up to a certain limit, and took steps calculated to secure the proposed close co-operation between the School of Botany and the Botanical Garden.

The laboratory of the School of Botany is temporarily located at 1724 Washington avenue, and a small library, containing the usual laboratory manuals and class books, which is kept at the laboratory for reference, is added to as new books, needed for class material, appear. In addition to alcoholic and imbedded material, a small herbarium is being formed, which is intended to contain representatives of the local flora. Advanced students, some of whose work is done at the Garden, also have the privilege of consulting, under necessary restrictions, the excellent herbarium and library maintained there, and now comprising about 350,000 sheets of specimens, something over 30,000 books and pamphlets, and a large collection of wood veneers and sections; and no effort is spared to make the Garden equipment as complete as possible in any line of work taken up by competent investigators.

The instrumental equipment of the laboratory includes one microscope by Zeiss, with the necessary objectives, ranging from A. A. to 1-18 in. oil immersion, and accessories for spectroscopic studies and work with polarized

light; twenty microscopes by Leitz, with the objectives needed for the best work (including five 1-12 in. oil immersion lenses, one 1-16 in. oil immersion, and one 1-20 in. oil immersion), polariscope, camera lucidas of several patterns, etc.; sixteen dissecting microscopes by Bausch and Lomb; two dissecting microscopes by Leitz, one of them provided with camera lucida; a projecting apparatus for delineating objects under a low power of enlargement; a simple outfit comprising all that is necessary for ordinary bacteriological investigation; and the apparatus needed for histological work and elementary physiological experimentation. Students are provided by the laboratory with all necessary instruments and supplies (excepting razors or other cutting instruments) without charge except for breakage or other injury and for slides and cover glasses used for permanent preparations; but when alcohol or other expensive substances are used in quantity, as in work on bacteria, a special charge may be made for material used.

The working year of the School of Botany is of the same extent as that of the Undergraduate Department of the University, and is similarly divided, except for a few special teachers' classes corresponding to the usual school terms.

The work offered students is of two classes: Undergraduate studies, including at present fifteen stated electives,—the equivalent of nearly three full years' work,—and post-graduate or special courses for advanced students, planned in each case to meet the needs of the student. For the convenience of students nearly all elementary

instruction is given at the laboratory, near the other University buildings, where the principal instrumental equipment is kept, but the study of living plants, and advanced herbarium and library work, are provided for at the Garden. All courses capable of being so taught are given in the laboratory, and supplemented by lectures and quizzes by the teacher. The few lecture courses offered are illustrated wherever possible by specimens exhibiting the subject under consideration, and by wall charts and the stereopticon.

A list of the undergraduate electives is given above (p. 32), in the general information concerning the Undergraduate Department. Under the advice of the Dean of the College, and the professor of botany, students who wish to make a specialty of botany through their course may arrange to take all of these electives and to follow them by a piece of investigation on which a thesis is to be based; and regularly enrolled special students who are not candidates for a degree may give the greater part of their time to botanical study, subject to such regulation as is prescribed by the Faculty.

Special classes for the benefit of teachers, and other persons not in attendance at the University, are formed from time to time, and such persons may be admitted to any of the regular electives on the payment of a tuition fee conformed to the general rates of the University, namely, \$15.00 for each full course (of three exercises per week during a term), and \$7.50 for each half course (of less than three exercises per week for the same length of time).

Graduate students who are eligible under the rules of the Faculty to candidacy for higher degrees (p. 69), if suitably prepared, may elect research work in botany as their principal study for such degrees.

Applications for the formation of special classes, and all correspondence concerning the School of Botany, should be addressed to

WILLIAM TRELEASE,

Shaw School of Botany,

St. Louis, Mo.

ST. LOUIS SCHOOL OF FINE ARTS.

(ART DEPARTMENT OF WASHINGTON UNIVERSITY.)

19th and Locust Streets.

**All communications in regard to the School should be
addressed**

ST. LOUIS SCHOOL OF FINE ARTS.

CALENDAR.

1899-1900.

FIRST TERM, DAY SCHOOL, begins Monday, September 25th, 1899.

FIRST TERM, DAY SCHOOL, ends Saturday, December 16th, 1899.

FIRST TERM, NIGHT SCHOOL, begins Monday, November 6th, 1899.

FIRST TERM, NIGHT SCHOOL, ends Saturday, February 3d, 1900.

SECOND TERM, DAY SCHOOL, begins Monday, December 18th, 1899.

SECOND TERM, DAY SCHOOL, ends Saturday, March 17th, 1900.

SECOND TERM, NIGHT SCHOOL, begins Monday, February 5th, 1900.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 28th, 1900.

THIRD TERM, DAY SCHOOL, begins Monday, March 19th, 1900.

THIRD TERM, DAY SCHOOL, ends Saturday, June 9th, 1900.

EXHIBITION OF STUDENTS' WORK, June 12th-14th, 1900.

1900-1901.

FIRST TERM, DAY SCHOOL, begins Monday, September 24th, 1900.

FIRST TERM, DAY SCHOOL, ends Saturday, December 15th, 1900.

FIRST TERM, NIGHT SCHOOL, begins Monday, November 5th, 1900.

FIRST TERM, NIGHT SCHOOL, ends Saturday, February 2d, 1901.

SECOND TERM, DAY SCHOOL, begins Monday, December 17th, 1900.

SECOND TERM, DAY SCHOOL, ends Saturday, March 16th, 1901.

SECOND TERM, NIGHT SCHOOL, begins Monday, February 4th, 1901.

SECOND TERM, NIGHT SCHOOL, ends Saturday, April 27th, 1901.

THIRD TERM, DAY SCHOOL, begins Monday, March 18th, 1901.

THIRD TERM, DAY SCHOOL, ends Saturday, June 8th, 1901.

EXHIBITION OF STUDENTS' WORK, June 11-13, 1901.

ST. LOUIS SCHOOL OF FINE ARTS.

REORGANIZED MAY 22, 1879.

The establishment of the Art School upon a broad and permanent foundation has always been part of the plan of Washington University. For nearly twenty-five years Art instruction has been embodied in the course of study. In 1875, special students were admitted to the Drawing Department, and class and public lectures were given on Art History. The same year an evening school was opened.

On May 22, 1879, the Directors of the University adopted an ordinance establishing a Department of Art in Washington University, from which the following extracts are taken:—

“A Department of Art is hereby established as a special Department of Washington University, to be known as THE ST. LOUIS SCHOOL OF FINE ARTS.

“The objects of said Department shall be: Instruction in Fine Arts; the collection and exhibition of pictures, statuary, and other works of art, and of whatever else may be of artistic interest and appropriate for a Public Gallery or Art Museum; and, in general, the promotion by all proper means of aesthetic or artistic education.”

BOARD OF CONTROL.

ELLIS WAINWRIGHT, PRESIDENT.
WINFIELD S. CHAPLIN, CHANCELLOR, *ex officio*.
HARRISON I. DRUMMOND.
ALFRED L. SHAPLEIGH.
CHARLES PARSONS.
CHARLES NAGEL.
GEORGE D. BARNARD.
DAVID C. BALL.
EDWARD R. HOYT.
HALSEY C. IVES, DIRECTOR, *ex officio*.

INSTRUCTORS AND LECTURERS.

HALSEY C. IVES, DIRECTOR.

Lecturer on the Historical Development of Art.
Pupil of Alexander Piatowski.

ROBERT P. BRINGHURST,

Modeling and Sculpture.

Atelier Dumont, l'Ecole des Beaux Arts.

EDWARD M. CAMPBELL.

Drawing and Painting from Still Life.
Pupil of Boulanger and Lefebvre.

ALICE M. MORE, SECRETARY,

Lecturer on the History of Painting, Renaissance and Modern Schools.
Pupil of the St. Louis School of Fine Arts.

CHARLES WARD RHODES,

Perspective, Shades and Shadows.

Kgl. Academie, Munich and K. K. Kunstgewerbe Schule, Berlin.

EDMUND H. WUERPEL.

Drawing and Painting from Life, and Composition.

Pupil of Bouguereau, Ferrier, Aman-Jean, and l'Ecole des Beaux Arts.

CHARLES P. DAVIS,*Antique.*

Pupil of N. Y. Art Students League, Bouguereau, Ferrier, and Henry.

JUSTINA V. A. PHILLIPS, LIBRARIAN,*Antique and Saturday Classes.*

Pupil of St. Louis School of Fine Arts.

ALICE M. G. PATTISON,*Lecturer on Engraving, Etching, and Allied Arts.*

Pupil of Ross Turner, William M. Chase, and S. R. Koehler.

LAURENCE EWALD,*Mechanical and Architectural Drawing.*

Pupil of Columbia University, N. Y., and Marcel de Montelos, Paris.

CHARLES A. WINTER,*Drawing and Painting from Life, and Composition.*

Pupil of Bouguereau and Ferrier.

HENRIETTA ORD JONES,*Ceramic Painting.*

Pupil of Franz Bischoff and Otto Punsch.

FREDERICK L. STODDARD,*Design and Water Color.*

Pupil of Bouguereau, Ferrier, Laurens, and Constant.

In addition to the regular staff of instructors, pupil teachers are added from time to time from the advanced students working in the school.

GENERAL INFORMATION.

There are three terms in the year.

Students will be admitted at any time, but not for less than one term, except by special arrangement with the Director.

The school furnishes instruction in Drawing, Modeling, Painting, Artistic Anatomy, Perspective, Composition, Design and Applied Art, Architectural and Mechanical Drawing.

The rooms are open for the study of drawing, painting and modeling, every day during each term from 9 a. m. to 4 p. m. and for the study of drawing from the Antique and Life, mechanical drawing and modeling three evenings in the week, from November to May.

Students may enter any class upon submitting examples of work showing the necessary skill. Applicants for admission to the evening Life Class must submit a drawing of a full length figure from the Antique or Life.

Students who can pass the necessary examination may study Modern Languages, History and Literature in classes of the Undergraduate Department of the University.

The school is fully equipped with models, casts from the Antique, *et cetera*.

The class rooms are adjacent to the galleries of the Museum. The building erected during the past year was especially designed to meet the needs of the various classes of the school and, in its appointments, art students will find every convenience for study.

The artists connected with the school as teachers have received their training in the Art Schools of Europe.

All finished work must be left in the school or if removed by special permission, must be returned before the close of the school year for final examination by the committee appointed for that purpose.

Instruction in all classes of the school is individual. Advancement of each student depends on the degree of proficiency only.

An admission fee of \$2.00 is charged each student on enrolling in the classes of the day school, and \$1.00 to each student enrolling in the night school.

TUITION FEES.

TUITION FEES are due and payable to the Treasurer of Washington University, in advance, on enrollment, and on the first of each term. For convenience, the Secretary of the school will receive the fee and transmit it to the Treasurer.

ENROLLMENT FEE. Each student pays this fee once . . . \$2 00
The income from enrollment fees is used in library extension work. Students withdrawing before the end of the year in which the fee is paid may continue the use of the library to the close of the year.

RATES OF TUITION. Antique, Life and Portrait Classes, either or all classes, per term 25 00

RATES OF TUITION. Saturday Class, Antique or Sketch Class, per term 5 00

Students will be admitted to the Day School, per month, with the privilege of one or more classes per day, first month 12 50
Each following month during the year 10 00

EVENING LIFE CLASS. Drawing or Modeling, three times per week, for term of twelve weeks	\$7 50
EVENING CLASS. Antique or Sketching from Life, three times per week, for term of twelve weeks	5 00
EVENING CLASS. Elementary, three times per week, for term of twelve weeks	5 00
EVENING CLASS. Architectural and Mechanical Drawing, three times per week, for term of twelve weeks	5 00
EVENING CLASS. Modeling, three times per week, for term of twelve weeks	5 00

CLASSES IN DESIGN AND APPLIED ART.

Regularly enrolled Art Students will receive instruction in Design without extra charge.	
For instruction in Applied Art an additional fee, per term, of \$7.00 will be charged.	
Special students will be admitted to these classes per term of twelve weeks	\$25 00
Students enrolled for one month, first month	12 50
Each succeeding month	10 00
For a period less than one month, including freedom of Museum and Library, per week	5 00

ARRANGEMENT OF CLASSES.**MORNING.****CLASSES IN THE ANTIQUE.**

Drawing from the Cast, elementary and advanced, daily, 9 to 12 a. m. Charles P. Davis and Justina V. A. Phillips, Instructors.

LIFE CLASS, NUDE AND DRAPED.

Drawing and Painting from the Nude and Costumed Model in Charcoal, Pastel and Oil Color, daily, 9 to 12 a. m. Edmund H. Wuerpel, Instructor.

CERAMIC PAINTING.

Decoration of China, Porcelain, and Glass, Tuesdays, Thursdays and Saturdays, 9 to 12 a. m. Henrietta Ord Jones, Instructor.

COMPOSITION IN COLOR.

Thursdays, 11:30 to 12:30. Edmund H. Wuerpel, Instructor.

COMPOSITION AND ILLUSTRATION IN BLACK AND WHITE.

Wednesdays, 11:30 to 12:30. Charles P. Davis, Instructor.

SKETCH CLASS IN BLACK AND WHITE.

Daily, 12:30 to 1 p. m. Free to all students.

PERSPECTIVE.

Mechanical and Freehand Perspective, Shades and Shadows. Winter term, Tuesdays and Fridays, 12 to 12:30 p. m. Charles Ward Rhodes, Instructor.

AFTERNOON.**PAINTING FROM THE HEAD.**

Drawing and Painting from the Head in Charcoal, Pastel and Oil Color, daily, 1 to 4 p. m. Charles A. Winter, Instructor.

PAINTING FROM STILL LIFE.

Oil and Water Color, daily, 1 to 4 p. m. Edward M. Campbell, Instructor.

CERAMIC PAINTING.

Decoration of China, Porcelain, and Glass, Mondays, Wednesdays and Fridays, 1 to 4 p. m. Henrietta Ord Jones, Instructor.

CLASSES IN DESIGN AND APPLIED ART.

Book Cover Designing, Drawing for Illustration, Decoration of Wood and Leather by means of Pyrography (wood burning) and the Application of Color, Stained Glass Designing, Designing for Posters and Advertising Purposes, Decorative Composition, and Surface Decoration as applied to China, Embroidery and other surfaces, daily, 1 to 4 p. m. Frederick L. Stoddard, Instructor.

MODELING.

From Architectural Ornament, the Antique, and Life, daily, 1 to 4 p. m. Robert P. Bringhurst, Instructor.

TEACHERS' COURSE.

Free-hand Drawing from Model, Object, Antique, and Life. Mechanical and Geometrical Drawing. Graphical Solution of Problems in Plane Geometry. Plans, Sections, and Elevations. Perspective, Shades and Shadows. Color—Simple Forms in Wash and Water Color. Sketching from Simple Forms in Still Life. Oil Color, Still Life; Sketching from Nature, Landscape and Life, in Oil, Water Color, and Black and White. Decoration of Various Forms, Porcelain, Pottery, etc.

Modeling—Simple Forms from Nature and Cast; Life. Application of Modeling to Various Forms of Decoration.

Lectures—History of Art, Architecture, Sculpture, and Painting. Prints. Application of Historic Ornament to Decoration. Daily, 1 to 4 p. m. Charles Ward Rhodes in charge.

EVENING CLASSES.**ANTIQUE, ELEMENTARY, AND ADVANCED.**

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Charles P. Davis and Edward M. Campbell, Instructors.

LIFE CLASS FROM THE NUDE.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Edmund H. Wuerpel, Instructor.

MODELING.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Robert P. Bringhurst, Instructor.

MECHANICAL DRAWING.

Geometrical Solids and Machine Details, etc. Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Laurence Ewald, Instructor.

ARCHITECTURAL DRAWING.

Plans, Elevations and Assembled Drawings, Perspective, Orthographic Projection, etc. Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Laurence Ewald, Instructor.

SATURDAY CLASSES.**JUVENILE CLASS.**

Drawing from the Cast and Still Life. Sketching in Water Color, 9 to 12 a. m. Justina V. A. Phillips, Instructor.

CLASS IN ILLUSTRATION IN BLACK AND WHITE.

9 to 12 a. m. Charles A. Winter, Instructor.

CLASS IN ILLUSTRATION AND SKETCHING IN COLOR.

9 to 12 a. m. Edmund H. Wuerpel, Instructor.

SKETCHING IN WATER COLOR FOR TEACHERS.

9 to 12 a. m. Frederick L. Stoddard, Instructor.

OUT-OF-DOOR SKETCHING, LANDSCAPE AND FIGURE.

Upon recommendations from their teachers classes will be formed from among the advanced students during the month of May, daily, 9 a. m. to 4 p. m. Criticisms by the various Instructors.

NOTES ON COURSE OF INSTRUCTION.

I.

In the Antique Classes the method of instruction aims to teach the student to construct their drawings in a simple and correct manner. By the use of antique and modern forms as models from which to draw, the student is trained to perceive planes and values, light and shade, and is taught to economize time and effort when striving to produce an effect. By this means a foundation is laid for the further training of the draughtsman, modeler and painter in the more advanced classes.

II. STILL LIFE PAINTING CLASS.

Students begin the study of color in this class. They are first taught to observe and represent simple masses of form and color such as are found in fruits and vegetables. They are then given more difficult combinations, reflected lights and values such as are found in objects made in richly colored metals or other materials. They are also encouraged to make careful studies of drapery. The student may work in oil or water color, but whatever medium may be used, a truthfulness in form, color and value, simplicity of treatment, and close study of texture are required.

III. MODELING CLASS.

The work of the modeling class is of a threefold nature. First, there are a small number of students who study modeling with the intention of becoming sculptors; these

students have every opportunity to study from the living model and also receive instruction in anatomy. Second, a large proportion of students study modeling in order to gain a more accurate knowledge of form and proportion to aid them in their drawing and painting. These students work from the cast as well as from the living model, both nude and draped. The third class is composed largely of artisans working to acquire a knowledge of decorative form and ornament as used in architecture. To this end they work chiefly from casts of ornaments and figures from the antique and renaissance periods.

IV.

The purpose of study in the Head and Portrait Class is to accustom the student to grasp the essential character of the model.

Firm construction in drawing is insisted upon; also attention to the salient characteristics in form and color.

Students are taught to sacrifice unimportant and unnecessary details in form and in color, by this means gaining simplicity and strength in their work. Freedom of conception and execution is encouraged. The study of color values is insisted upon as more important than brush work and technique.

V.

The last step in the academic training of the art student is the study from the living model. In the study from the nude, facility in construction, observation of character, correctness of proportions and values and a fearlessness of execution are essential. In painting from the

nude, simplicity of form, value and color, must follow good drawing. Method of execution is entirely individual whether in black and white or in color. The placing of the figure or object on canvas, with a view to composition, is demanded. In the advanced studies, the background is called for, and atmospheric relief expected.

VI. DRAWING FOR ILLUSTRATION.

The purpose of this class is to give the student a knowledge of drawing and pictorial composition and to apply this knowledge to the production of illustrations in various forms. At first the work is from casts, natural forms and drapery and later drawings are made from the living figure draped and nude. Constant effort is directed to the cultivation of a quickness of observation, the ability to draw correctly, the selection and arrangement of the material within the picture and an absolute simplicity of expression.

The various methods used are: THE POINT, the pencil, pen, and chalk — THE BRUSH, in gouache and wash; and COLOR, in oil, aquarelle, and pastel.

In black and white the student is urged to search for indicative rather than an absolute or real method of expression. Freedom of individual execution is encouraged.

In color the value and correctness of tone are considered above finish and execution.

In addition the student is impressed with the limitations imposed by the processes through which his drawing is transferred to the printed page. The aim is to familiarize the student with the requirements of these processes

as well as to develop artistic feeling and the technical capacity to express it.

VII. CLASS IN APPLIED ART.

CERAMIC DECORATION.

The aim of this class is to give the students a practical knowledge of painting on china, glass, etc. Particular attention is given to the development of originality in design, and simplicity in treatment. The student is first taught to make a careful and intelligent study of the shape to be decorated and the space to be covered. Special attention is given to the application of conventional ornament as well as realistic forms. All firing is done in the building of the school so that a thorough knowledge may be obtained in the use of the Kiln.

The students of this class will have the privilege of studying the large collections of decorated porcelain in the galleries of the Museum, comprehending examples of Doulton, Royal Worcester, Crown Derby, Danish, and Swedish ware. There are also collections of Old Chinese, Wedgewood and Rosenberg potteries.

VIII.

In accordance with the announcement made some time ago arrangements have been completed for the organization of classes in Design and Applied Art. Instruction will be given in the following subjects: Book Cover Designing, Drawing for Illustration, Decoration of Wood and Leather by means of Pyrography (wood burning) and the Application of Color, Stained Glass Designing,

Designing for Posters and Advertising Purposes, Decorative Composition, and Surface Decoration as applied to China, Embroidery and other surfaces.

Mr. Frederick L. Stoddard and Miss Henrietta Ord Jones have been added to the corps of instructors of the School. Classes in Design and Water Color will be under the supervision of Mr. Stoddard, and those in Ceramic Decoration will be under the instruction of Miss Jones.

All students of the School have access to the Library, which contains a large collection of books and plates referring to the above subjects.

By Applied Art is meant the practical carrying out of the design in the material for which the drawing has been made.

IX. MECHANICAL AND ARCHITECTURAL DRAWING.

Classes in these subjects are held only at night. Owing to the variety of knowledge and ability possessed by the student, the instruction is largely individual.

Mechanical Drawing includes the following branches:

I. Plane Geometrical Drawing, Orthographic Projection, Intersections of Solids and Development of Surfaces.

II. Drawing of Machine Details from measurement.

III. The making of Assembled Drawings.

IV. Tracing.

The purpose of instruction is to teach students how to make practical working drawings, and to read them with ease.

In the Architectural Drawing Class beginners are taught how to use their instruments, and to make neat and accurate line drawings. Instruction is given in the preparation of plans, elevations and working drawings for various kinds of buildings. Advanced students are taught Perspective Drawing, and the Drawing of ornamental forms for decorative purposes.

CLASS LECTURES.

A course of Class Lectures upon the History of Painting, the Graphic Arts, Artistic Buildings and Localities, and other subjects relating to the History of Art Development from the earliest period to the present time, are given in the Lecture Hall every Tuesday afternoon from four to five o'clock, by a special corps of Lecturers. The character and scope of these Lectures may be judged from the following synopsis of the course for 1898-1899.

All lectures are fully illustrated by stereopticon views and examples from the Museum Collections.

The Historic Cities of Spain (three lectures). *Prof. H. C. Ires.*
Prints, Old and Modern (eight lectures). *Alice M. G. Pattison.*
The Origin and Development of Ornament (four lectures).

Holmes Smith.

Schools in Art (four lectures). *Edmund H. Wuerpel.*

Whistler (two lectures). *Edmund H. Wuerpel.*

Recent Painting and Sculpture in Germany, France and America. *Charles Ward Rhodes.*

Perspective (fourteen lectures). *Charles Ward Rhodes.*

Historical Development of Modern Painting (fourteen lectures). *A. M. More.*

The Awards in the School of Fine Arts for the year 1898-1899, were as follows: —

ST. LOUIS, June 6, 1899.

PROFESSOR H. C. IVES,

Director St. Louis School of Fine Arts, City.

DEAR SIR: — The Jury of Awards in examining the work of students of the St. Louis School of Fine Arts, submitted in competition for honors for the year 1898-1899, found the standard of excellence so uniformly good that its task in deciding was very difficult. We congratulate you upon the success of the year's work and recommend the following students for honors: —

ANTIQUE CLASS.

1. Miss Barbara Blackman, St. Louis.
2. Miss Isabel D. Brownlee, St. Louis.
3. Miss Tula V. Houck, St. Louis.

STILL LIFE PAINTING CLASS.

1. Miss Katheryn Diggs Cogswell, St. Louis.
2. Miss Marguerite E. Martyn, Springfield, Mo.
3. Miss Anna Clotilde Brokaw, St. Louis.

PORTRAIT CLASS IN BLACK AND WHITE.

1. Miss Augusta Knight, St. Louis.
2. Mr. Wm. M. Young, Upper Alton, Ills.
3. Miss Agnes M. Richmond, St. Louis.

PORTRAIT CLASS IN COLOR.

1. Miss Beatrice Benson, West Plains, Mo.
2. Mr. David H. MacAdam, Kirkwood, Mo.
3. Miss Laura E. Menne, St. Louis.

LIFE CLASS IN BLACK AND WHITE.

1. Miss Evelyn Fitch, St. Louis.
2. Miss Grace Hazard, Kirkwood, Mo.
3. Miss Beatrice Benson, West Plains, Mo.

LIFE CLASS IN COLOR.

1. Mr. David H. MacAdam, Kirkwood, Mo.
2. Miss Laura E. Menne, St. Louis.
3. Miss Evelyn Fitch, St. Louis.

COMPOSITION CLASS.

1. Miss Emma C. McKeen, St. Louis.
2. Mr. David H. MacAdam, Kirkwood, Mo.

SATURDAY SKETCH CLASS, COLOR.

1. Miss Laura E. Menne, St. Louis.
2. Mr. David H. MacAdam, Kirkwood, Mo.
3. Miss Evelyn Fitch, St. Louis, Honorable Mention.

SATURDAY SKETCH CLASS, BLACK AND WHITE.

1. Miss Beatrice Benson, West Plains, Mo.
2. Miss Evelyn Fitch, St. Louis.

MODELING, LIFE.

1. Miss Grace Hazard, Kirkwood, Mo.

Miss Florence Sharman, having previously received the highest honors of the class, is debarred from further competition.

MODELING, ANTIQUE.

Mr. Chas. P. Krum, St. Louis.

We would also recommend that the following students be mentioned as having done most excellent work in the classes named and as having made the task of the judges most difficult: —

LIFE CLASS.

Miss Beatrice Benson.

HEAD CLASS, BLACK AND WHITE.

Mrs. Sue Hirst.

HEAD CLASS, COLOR.

Miss Evelyn Fitch.

SATURDAY SKETCH CLASS, BLACK AND WHITE.

Mr. Wm. M. Young.

STILL LIFE CLASS.

Miss Agnes M. Richmond.

Respectfully,

W.M. A. GRIFFITH,

F. L. STODDARD,

C. G. WALDECK,

Jury.

The Wayman Crow Medal awarded for the most satisfactory progress in all classes is unanimously voted by the instructors to Mr. William Mark Young, of Upper Alton, Ills.

HALSEY C. IVES.

Director.

THE ST. LOUIS MUSEUM OF FINE ARTS.

The Museum of Fine Arts has a valuable permanent collection of statuary, paintings, pottery, carvings, etc., which affords the public, as well as students, an indispensable aid to the study of art; and in order that opportunity may be given for studying the methods of the different schools of painting and the works of celebrated artists, arrangements have been made for a series of fine exhibitions of oil and water color paintings, architectural drawings and engravings.

Any one desiring to become a member of the Museum of Fine Arts may do so by the annual payment of \$10.00. This membership entitles him, with his family and non-resident guests, to the privilege of visiting the Museum at all times when open to the public, and to all lectures, receptions, and special exhibitions given under the auspices of the Board of Control.

SCHOOL OF FINE ARTS.

Students enrolled from date of issue of last catalogue, March 28, 1899, to February 16, 1900.

FULL TIME STUDENTS.

NAMES.	RESIDENCE.
Alexander, Frances	3147 Laclede av.
Barry, Jessie H.	941 Hamilton av.
Batterton, Virginia B.	3734 Olive st.
Bay, Lillian	3729 Delmar av.
Bell, Cora	1814 Washington av.
Bell, Emma	Falling Water, Tenn.
Berry, Eugenia	Old Orchard, Mo.
Blackman, Barbara Adelaide	5843 Bartmer av.
Blood, Sophy Evelyn	3750 Finney av.
Brokaw, Anna Clotilda	3200 Lucas av.
Brown, James Alexander	2841 Gamble st.
Brownlee, Isabel Doan	4210 Westminster pl.
Boyer, Clara Pearl	5334 Maple av.
Brinson, Sarah E.	1355 Bayard av.
Brunner, Hermine	622 Bates st.
Bush, Hugh	3111 Olive st.
Butler, Emily Mansfield	Westmoreland Hotel.
Cadwallader, Clarence L.	15 Parkland pl.
Chamberlain, Mary Anne	6218 Wagner pl.
Chase, Lyna Metcalfe	Hillside, Mo.
Chase, Rhoda Campbell	3334 Washington av.
Clements, Ferdinand	Owensborough, Ky.
Cogswell, Katheryn Diggs	4211 Page av.
Conrey, Lee	2014 N. 10th st.
Cornelison, Patsey McWilliams	4937 Terry av.
Corwin, Cora Bridges	3572 Clemens av.

NAMES.	RESIDENCE.
Eichbaum, Mary Elizabeth	Brooklyn, Mich.
Ennis, George Peirse	1259 Delaware av.
Erker, Rose J.	Oakland, Mo.
Field, Lucetta L.	4038 West Belle pl.
Fitch, Evelyn	4943 Reber pl.
Franklin, Ethel Chandler	Kirkwood Mo.
Franklin, Laura I. P.	Kirkwood, Mo.
Fullerton, Alice V.	1814 Washington av.
Galbraith, Corinne	Honey Grove, Texas.
Gimbel, H. Hortense	4262 Morgan st.
Harris, Joseph Henry, Jr.	Kansas City, Mo.
Haynes, Sallie G.	522 Newstead av.
Hazard, Grace	Kirkwood, Mo.
Hazard, Virginia Lorraine	Webster Groves, Mo.
Heltzell, Ida G.	3119 Franklin av.
Herthel, Alice T.	1209 Dolman st.
Hinde, Katharine	Mexico, Mo.
Houck, Tula Vivian	1742 Waverly pl.
Humert, Carrie A.	5634 Cates av.
Hyatt, Mary Olive	Kirkwood, Mo.
Johns, Charles F.	3958 Cook av.
Katz, Alma	5182 Cabanne pl.
Kendall, Alice Rosamond	Kirkwood, Mo.
Leonard, Robb Bentley	4350 Maryland av.
Marshall, Elizabeth Winifred	Webster Groves, Mo.
Martyn, Marguerite	Springfield, Mo.
McKeen, Emma Katherine	3749 Delmar av.
McKillopp, William	3531 Olive st.
Medley, Louise	4358 Washington av.
Meyer, Albert	4376 Chouteau av.
Montroy, Pearl	Chester, Ill.
Ramsey, Jane Margaret	5475 Cabanne pl.
Richmond, Agnes Mary	1727 California av.
Sayers, Frank Charles	235 S. Jefferson av.
Scheel, Minnie	Belleville, Ill.

NAMES.	RESIDENCE.
Scheutte, Henry	{ 611 Missouri av., E. St. Louis, Ill.
Schlapp, Fannie	Fort Madison, Ia.
Schuchmann, Alois	1525 Missouri av.
Schwinn, Mary Jane	Kansas City, Mo.
Shank, Charlotte	3539 Park av.
Sharman, Florence Marion	2124 S. Compton av.
Simpson, Lila Belle	2110 Lafayette av.
Souther, Lucy Abbott	4329 Bell av.
Spalding, Mary L.	Syracuse, N. Y.
Sterling, Mimi	Helena, Ark.
Stuart, John Guy	5436 Maple av.
Stuyvesant, Mary Crowninsheild	5885 Cates av.
Sullivan, Nellie	Belleville, Ill.
Thompson, Alice Hayden	1339 Bayard av.
Thrasher, Sara Emily	2737 Olive st.
Timken, Cora Belle	4062 Lindell av.
Trexler, Beulah	8 N. Cardinal av.
Upchurch, Mary Isabel	Evansville, Ind.
Walt, Sibelle	Greenville, Ill.
Watkins, Elna F.	4482a Delmar av.
Wangelin, Josie Kircher	Belleville, Ill.
Wells, Margaret	Springfield, Mo.
Willard, Modena	3333 Washington av.
Williams, Loula L.	3308 Lucas av.
Wilson, Lucille Logan	Collinsville, Ill.
Wilson, Sarah Dean	Pinckneyville, Ill.
Witter, Edward George	3662 Cleveland av.
Young, William Mark	Upper Alton, Ill.
Students working full time	89
Students working part time	74
Students working in night classes .	130
Total number enrolled	293

ST. LOUIS LAW SCHOOL.

(LAW DEPARTMENT WASHINGTON UNIVERSITY.)

CALENDAR 1899-1900.

LAW SCHOOL opens Thursday, September 28, 1899.

HOLIDAY, THANKSGIVING DAY, Thursday, November 23, 1899.

VACATION, December 23, 1899, to January 1, 1900, inclusive.

HOLIDAY, WASHINGTON'S BIRTHDAY, Thursday, February 22, 1900.

UNIVERSITY HOLIDAY, Friday, May 11, 1900.

COMMENCEMENT, Thursday evening, June 21, 1900.

VACATION, from June 21 to Thursday, September 27, 1900.

EXAMINATIONS FOR ENTRANCE TO SENIOR CLASS, Tuesday, September 25, 1900.

LAW SCHOOL opens Thursday, September 27, 1900.

HOLIDAY, THANKSGIVING DAY, Thursday, November 22, 1900.

VACATION, from December 24, 1900, to January 1, 1901, inclusive.

LAW SCHOOL.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,

Chancellor of Washington University.

WILLIAM S. CURTIS, LL.B.,

Dean of the Law Faculty.

AMOS M. THAYER (U. S. Circuit Judge),

Professor, Real Property Law and Equity.

CHARLES NAGEL, LL.B.,

Professor, Law of Contracts and Commercial Law.

GUSTAVUS A. FINKELNBURG,

Lecturer, International Law.

EDWARD C. ELIOT, LL.B.,

Lecturer, Sales and Bailments.

PENDLETON T. BRYAN, LL.B.,

Lecturer, Torts and Negligence.

CHARLES P. JOHNSON, A. M.,

Lecturer, Criminal Law.

FREDERICK N. JUDSON, LL.D.,

Lecturer, Constitutional Law.

ISAAC H. LIONBERGER, A. M.;

Lecturer, Corporations, Statutes of Limitations and Frauds.

LEE SALE, LL.B.,

Lecturer, Partnership.

PAUL F. COSTE, LL.B.,

Lecturer, Agency.

JACOB KLEIN, LL.B. (Judge of St. Louis Circuit Court),

Lecturer, Advanced Class.

C. O. BISHOP, LL.B.,

Lecturer, Criminal Law.

EDWARD S. ROBERT, LL.B.,

Lecturer, Evidence.

JAMES P. MAGINN, LL.B.,

Lecturer, Administration.

EBEN C. RICHARDS, LL.B.,

Lecturer, Damages.

ADVISORY AND EXAMINING BOARD.

LEROY B. VALLIANT, Justice of the Supreme Court of Missouri.

WARWICK HOUGH, late Justice of the Supreme Court of Missouri.

SHEPARD BARCLAY, late Justice of the Supreme Court of Missouri.

ELMER B. ADAMS, United States District Judge.

SAMUEL TREAT, LL.D., United States District Judge (retired).

HENRY S. PRIEST, late United States District Judge.

WILLIAM H. BIGGS, Judge of St. Louis Court of Appeals.

HENRY W. BOND, Judge of St. Louis Court of Appeals.

C. C. BLAND, Judge of St. Louis Court of Appeals.

R. A. BAKEWELL, late Judge of St. Louis Court of Appeals.

SEYMOUR D. THOMPSON, late Judge of St. Louis Court of Appeals.

JACOB KLEIN, Judge of St. Louis Circuit Court.

JAMES E. WITHROW, Judge of St. Louis Circuit Court.

DANIEL D. FISHER, Judge of St. Louis Circuit Court.

HORATIO D. WOOD, Judge of St. Louis Circuit Court.

DANIEL DILLON, late Judge of St. Louis Circuit Court.

WILBUR F. BOYLE, late Judge of St. Louis Circuit Court.

GEORGE W. LUBKE, late Judge of St. Louis Circuit Court.

JAMES A. SEDDON, late Judge of St. Louis Circuit Court.

JOHN W. NOBLE,
EDWARD C. KEHR,
ARBA N. CRANE,
JAMES TAUSSIG,
JOHN W. DRYDEN,
EDW. CUNNINGHAM, JR.,
GEORGE H. SHIELDS,
CHAS. CLAFLIN ALLEN,
JOHN M. HOLMES,
HENRY T. KENT,
LEVERETT BELL,
EDWARD T. FARISH,
EVERETT W. PATTISON,
JOHN E. McKEIGHAN,
SILAS B. JONES,
TRUMAN A. POST,
HUGO MUENCH,
ELENEIOUS SMITH,
JAMES P. DAWSON,
DAVID GOLDSMITH,
FRED A. WISLIZENUS,
JOHN A. HARRISON,
WELLS H. BLODGETT,
E. T. ALLEN,
JOHN F. LEE,
JOHN D. DAVIS,
JAMES L. BLAIR,
WILLIAM B. HOMER,
FRED'K W. LEHMANN,
THOMAS K. SKINKER,
ROBERT F. WALKER,
WALTER D. COLES,
WALTER B. DOUGLASS,
JAMES HAGERMAN,
JESSE A. McDONALD,
Of the St. Louis Bar.

COMMITTEES OF EXAMINATION.

FOR THE YEAR 1899.

For the Examination of Candidates for Graduation.

CHAS. CLAFLIN ALLEN,
LEVERETT BELL,
C. C. BLAND,
DAVID GOLDSMITH,
JOHN A. HARRISON,
HUGO MUENCH,
ELENEIOUS SMITH,

For the Award of a Prize of Fifty Dollars for the best Graduation Thesis.

GEORGE M. BLOCK,
JOSEPH W. LEWIS,
JOSEPH H. ZUMBALEN.

HONORS, 1899.

PRIZE ESSAYIST,
LOUIS A. DAMMERT.

The Juniors who passed all the Junior examinations with an average grade of eighty per cent or over, and are therefore entitled to enter the Senior class *cum laude*, are:—

- WILLIAM H. ALLEN, St. Louis, 91.50.
TYRRELL WILLIAMS, St. Louis, 87.55.
ALBERT E. HAUSMAN, St. Louis, 87.46.
JAMES E. CLIFFORD, Jacksonville, Ill., 86.99.
EDWARD D'ARCY, St. Louis, 86.75.
RICHARDSON D. WHITE, St. Louis, 86.75.
MURRAY PHILLIPS, JR., New Madrid, Mo., 86.37.
JAMES R. VAN SLYKE, Hastings, Minn., 84.91.
GEORGE M. RIPLEY, St. Louis, 83.89.
BENJAMIN F. LINDAS, St. Louis, 83.14.
EMERSON E. SCHNEPP, Greenville, Ill., 82.88.
WARREN R. DALTON, Wentzville, Mo., 82.46.
WILLIAM McC. MARTIN, St. Louis, 81.39.
WILLIAM S. WITTLER, St. Louis, 80.71.
FREDERICK G. BIERER, Anna, Ill., 80.23

ADVANCED CLASS.

ADDRESS.

Daisy D. Barbee (LL.B., 1896, Washington University)	142 Laclede bldg.
Peter T. Barrett (LL.B., 1898, Washington University)	527 Lincoln Trust bldg.
Louis A. Dammert (LL.B., 1899, Washington University)	511 Chestnut st.
James D. Dockery (LL.B., 1899, Washington University)	3875 Delmar boul.
James L. Lester (LL.B., 1889, Washington University)	804 Wainwright bldg.
Henry H. Oberschelp (LL.B., 1898, Washington University)	703 Security bldg.
Anthony A. O'Hallaron (LL.B., 1899, Washington University)	1811 Ohio av.
Perry Post Taylor	600 Carleton bldg.

SENIOR CLASS.

CITY RESIDENCE.

Allen, William Hughes (A. B., 1895, Washington Univ.), St. Louis	3907 Castleman av.
Bierer, Frederick Griffith, Anna, Ill.	2309 Locust st.
Blodgett, Henry W., St. Louis	3108 Pine st.
Boemler, Henry William, St. Louis	4051 McPherson av.
Bozarth, Carroll, La Grange, Mo.	4742 Greer av.
Burleigh, Geo. P. (A. B., 1894, St. Louis Univ.), St. Louis	3033 Morgan st.
Clark, W. Christy, Montgomery City, Mo.	2113 Locust st.
Clifford, James Edward (Ph. B., 1896, Illinois College), Jacksonville, Ill.	3424 Washington av.
Dalton, Warren R. (A. B., 1890, Hia-wassee College), Wentzville, Mo.	4524 Page av.

	CITY RESIDENCE.
Daniels, Olin James, St. Louis . . .	4179 W. Belle pl.
D'Arcy, Edward, St. Louis . . .	5884 Bartmer pl.
Davis, Walter Naylor, St. Louis . .	5155 Maple av.
Fenn, Bertrand Frederick, St. Louis .	2646 Randolph st.
Haeussler, Harry Herman, St. Louis .	3117 Russell av.
Harding, Frederick Benjamin (A. B., 1894, McKendree College), East St. Louis, Ill.	20 N. Main st.
Hausman, Albert Excelsior, St. Louis .	1307 N. Broadway.
Haverstick, Andrew Jackson, Victoria, Mo.	Laclede and 43d st.
Heath, Frederick W., Montrose, Col. .	2631 Washington av.
Hoxie, Robert Sarle (Ph. B., 1898, Union College), Cambridge, N. Y. . . .	4010 Westminster pl.
Huff, Virgil Varro (A. B., 1898, Mo. Valley College), Marshall, Mo. . .	2612 Locust st.
Ladd, Harry Caldwell, St. Louis . .	3043 Locust st.
Lally, John, St. Louis	4114 Cook av.
Leonard, Harry W., Alton, Ill. . . .	3629 Laclede av.
Lindas, Benjamin Franklin, St. Louis .	1801 Coleman st.
Martin, William McChesney (A. B., 1895, Washington and Lee University), St. Louis	3424 Washington av.
McKittrick, Samuel Walker, Edwards- ville, Ill.	
Menown, John, St. Louis	3510 Easton av.
Norcross, Hiram (A. B., 1897, Mon- mouth College), Monmouth, Ill. . .	2212 Locust st.
Phillips, Murray, Jr. (A. B., 1898, Mo. State Univ.), New Madrid, Mo. . .	1825 Belleglade av.
Putnam, Eugene Valentine, St. Louis .	3306 S. Broadway.
Revelle, Charles Gilbert, Lutesville, Mo.	1712 Locust st.
Rhodes, Arthur M., St. Louis	4414 Washington av.
Rigney, Francis E. (A. B., 1898, George- town University), Shackelford, Mo. .	3525 Lindell av.

CITY RESIDENCE.

Riley, Ambrose Joseph (A. M., 1898, .	
Georgetown University), St. Louis .	1501 S. Grand av.
Ripley, George Minot (A. B., 1898,	
Yale University), St. Louis	3400 Morgan st.
Rosenberger, Emil P., High Hill, Mo.,	2113 Locust st.
Roudebush, Alfred Holt (A. B., 1894,	
University of Mississippi), St. Louis, 5858 Cates av.	
Schnepp, Emerson E. (Ph. B., 1895,	
De Pauw University), Greenville, Ill. 2916 Pine st.	
Shanks, Mack R., Marshfield, Mo. .	2631 Washington av.
Smith, James, St. Louis	
Starke, LeRoy Bruce, Butler, Mo. .	1381 Burd av.
Sturgeon, Lockwood, St. Louis . . .	1410 E. Grand av.
Van Slyke, James Rogers (B. L., 1896,	
Carleton College), Hastings, Minn. .	2309 Locust st.
White, Richardson Douglass (A. B.,	
1893, Hampton Sidney College),	
St. Louis	3841 Morgan st.
Williams, Tyrrell (A. B., 1898, Prince-	
ton University), St. Louis	3945 Delmar av.
Winton, Paul, Centralia, Ill.	3147 Locust st.
Wittler, William Stephen (A. B., 1898,	
Washington University), St. Louis .	1134 Rutger st.

JUNIOR CLASS.

Althemier, Beno, Pine Bluff, Ark. . .	3948 Lindell boul.
Anheuser, Eberhard, St. Louis . . .	3131 Russell av.
Arkebauer, Bruno George, Mt. Olive, Ill. 2215 Locust st.	
Arnold, Glendy Burke, Frankfort, Ky. .	3814 Delmar av.
Atkin, Edgar (A. B., 1899, Yale Univ.),	
New York City	5228 Vernon av.
Barnes, Henry Hoyt, St. Louis . . .	3320 Morgan st.
Becker, William Dee (A. B., 1899, Har-	
vard Univ.), St. Louis	1829 Hickory st.

	CITY RESIDENCE.
Boehmen, Louis L., St. Louis	1643 Texas av.
Brown, Addison, St. Louis	2309 Locust st.
Buckley, Barney E. (A. M., 1891, Heidelberg Univ., Ohio), St. Louis	6141 Gambleton pl.
Carpenter, Will, Waverly, Ill.	16 N. Ewing av.
Carson, Zenas Keers, Sparta, Ill.	2212 Locust st.
Chopin, Felix Andrew, St. Louis	3317 Morgan st.
Cleland, Jesse Princeton (A. B., 1899, Univ. of Nebraska), Omaha, Neb.	2936 Lucas av.
Coleman, Frank B., Forestell, Mo.	2309 Locust st.
Connett, William Carroll, St. Joseph, Mo.	5423 Bartmer pl.
Cooper, Thomas Keener, St. Louis	3718 Washington boul.
Cornelius, Stephen, St. Louis	1081 Morrison av.
Currie, Dwight Dent, St. Louis	5173 Maple av.
Daues, Charles H., Cape Girardeau, Mo.	3011 Osage st.
Diehl, Bruno Huxley, Centralia, Ill.	2733 Olive st.
Donaldson, William Rhind, Jr. (A. B., 1898, Harvard Univ.), St. Louis	4600 Lindell boul.
Donovan, Irwin, St. Louis	3037 Pine st.
Falkenhainer, Victor Henry, St. Louis	3508 Missouri av.
Fechte, John L., Venice, Ill. . . . .	. . . . .
Filley, Augustus, St. Louis	1614 Olive st.
Fisher, John I., St. Louis	4931 Page av.
Fordyce, Samuel Wesley (A. B., 1898, Harvard Univ.), St. Louis	3634 Washington av.
Galt, Thomas F. (B. S., 1899, Princeton Univ.), St. Louis	63 Vandeventer pl.
Geraghty, Francis X., St. Louis	2805 Cass av.
Goebel, Julius Christian, St. Louis	1215 S. 14th st.
Gorin, Henry Jerome, St. Louis	4100 W. Belle pl.
Graves, Frank W., St. Louis	1943 N. 11th st.
Gray, Orion D., St. Louis	1011 N. Garrison av.
Gresham, Sherman Tecumseh (B. S., 1890, So. Ind. Normal College), Cape Girardeau, Mo. . . . .	. . . . .

CITY RESIDENCE.

Hall, Fred. Silvey (A. B., 1898, Univ. of Illinois), Arcola, Ill.	. . . . .	2938 Locust st.
Hammer, Otto Walter, St. Louis	. . . . .	2007 Sidney st.
Hannon, John William, St. Louis	. . . . .	3828 Cook av.
Hawthorne, Donald K., Jonesboro, Ark.	. . . . .	4380 Laclede av.
Hilton, Warren (A. B., 1895, Wash- ton Univ.), St. Louis	. . . . .	2351 Albion pl.
Howard, W. P., Jr., St. Louis	. . . . .	3003 Pine st.
Hulse, Homer A., Wright Co., Ia.	. . . . .	3650 Finney av.
Igoe, William L., St. Louis	. . . . .	4427 Kossuth av.
Janis, Paul V., Ferguson, Mo.	. . . . .
Judd, Lewis Charles (B. S., 1891, Dixon College), Mt. Vernon, Ill.	. . . . .	3748 Olive st.
Kelly, Charles Francis, St. Louis	. . . . .	1815 N. Elliot av.
Kelly, Walter A., St. Louis	. . . . .	411 St. George st.
King, James Rucks, St. Louis	. . . . .	5611 Bartmer av.
Kinkel, Charles Arthur, St. Louis	. . . . .	2828 Dickson st.
Knight, David Mack (A. B., 1899, Washington and Jefferson College), St. Louis	. . . . .	2123 Clifton av.
Koenig, Eugene, St. Louis	. . . . .	2945 Milton av.
Landauer, Isidore, St. Louis	. . . . .	3010 Park av.
Lee, Charles Howard (A. B., 1899, Park College), Louisburg, Kan.	. . . . .	2948 Chestnut st.
Leonard, Loyal Lovejoy (B. S., 1896, Trinity College), St. Louis	. . . . .	4348 Olive st.
Lewis, John James, Webster Groves, Mo.		
McNamee, William, St. Louis	. . . . .	6633 Virginia av.
Miller, Eugene Walter (B. S., 1896, No. Ind. Normal), Belleville, Ill.	. . . . .
Mintonye, Byron A., Havana, Ill.	. . . . .
Monroe, George Silas, St. Louis	. . . . .	3425 Clark av.
Monteith, Edward Mason, Newport, Ark.	. . . . .	3124 Shenandoah st.
Murphy, Anselm B., St. Louis	. . . . .	3655 Washington av.

CITY RESIDENCE.

- Murphy, Ferdinand Bernard, St. Louis 3212 Newstead av.
 Neal, Robert Lincoln (A. B., 1888, Natl.
 Normal Univ.), Knoxville, Tenn. . . 3748 Olive st.
 O'Hallaron, Joseph William, St. Louis . 1811 Ohio av.
 Oliver, Max. William (A. B., 1899, Har-
 vard Univ.), St. Louis Hotel Beers.
 Pape, Fanny, Old Orchard, Mo.
 Pirkey, Earl McC. (A. B., 1892, Christian
 Univ.), Canton, Mo. 3149 Locust st.
 Rassieur, Leo Gustave, St. Louis . . . 2835 Whittemore pl.
 Richards, Hayden O., Jerseyville, Ill. . 2646 Washington av.
 Rickert, Nelson Andrew, Waterloo, Ill. 2708 Marcus av.
 Robertson, George Gordon (A. B., 1899,
 Mo. State Univ.), St. Louis 3957 Delmar av.
 Rodgers, James Russell, St. Louis . . . 3706 Pine st.
 Ryan, Francis X., St. Louis 4833 Cote Brilliante av.
 Schuchman, Alois, St. Louis 1525 Missouri av.
 Scullin, William Richard, St. Louis . . 3142 Locust st.
 Semmelroth, August, Belleville, Ill. . .
 Shotwell, Clarence Lee, Ellisville, Mo. 4040 Page av.
 Sidener, Charles Howard (Ph. B., 1898,
 Wabash College), Crawfordsville, Ind.
 Staed, Mark Aloysius (M. A., 1898,
 Georgetown Univ.), St. Louis 3532 Page av.
 Stephens, Custis G., St. Louis 1611 Missouri av.
 Stinebaker, George Washington, St.
 Louis 913 N. 19th st.
 Sylvester, Elmer H., St. Louis 4147 McPherson av.
 Troll, Harry F., St. Louis 3624 Shaw av.
 Truesdale, Augustus N., St. Louis 1611 Semple av.
 Ungar, Frank Block, St. Louis 2040 Victor st.
 Wagner, Edwin H., St. Louis 4228 Delmar av.
 Walker, Orin DeMotte (Ph. B., 1899, De
 Pauw Univ.), Greencastle, Ind. 3025 Morgan st.
 Walker, Robert, St. Louis Hotel Barnum.

CITY RESIDENCE.

Wesseler, William Julius, St. Louis	2819 S. 13th st.
Wiederholt, Carl Alfred, St. Louis	1211 Morrison av.
Wilson, Robert Monroe, St. Louis	3523 Lindell av.
Young, Truman Post (A. B., 1899, Yale Univ.), St. Louis	3041 Lucas av.
Zahn, Arthur F., St. Louis	1958 Sidney st.
Zenor, George Gildea (B. S., 1899, Centenary College, La.), Patterson, La. . .	3680 Lindell boul.
Advanced Class	8
Senior Class	47
Junior Class	94
Total, 149	

GENERAL INFORMATION.

The St. Louis Law School was established as a department of Washington University in 1867. A class was graduated in 1869, and one class each year since. It occupies exclusively a commodious building, No. 1417 Locust Street, containing all necessary lecture rooms, offices, library rooms, etc. The library contains more than 8,000 volumes, devoted solely to the uses of the school. By the courtesy of The St. Louis Law Library Association, the students also have access on Saturday to its library. The special endowment of the Law School now amounts to \$77,000.

The method of instruction is rather by text-books than by collections of cases, and very little is done in the way of mere lectures. The daily exercises of the school are really recitations. The following figures give the enrollment during the last six years: —

	SENIORS.	JUNIORS.	GRADUATED.
1894-5	37	94	32
1895-6	54	95	40
1896-7	58	101	40
1897-8	59	85	50
1898-9	61	81	48
1899-1900	47	94	—

ADMISSION.

Applicants for admission to the school will be expected to furnish satisfactory evidence of at least a good English

education. The diploma of any reputable college, academy or high school will be received as evidence of the latter; or the applicant may pass an examination to test his ability to read law-books intelligently.

No fixed rule as to the age of applicants for admission is enforced, but the Faculty reserve the right to reject any student not old enough to begin the study of law with advantage; and no student will receive the degree of Bachelor of Laws before the completion of his twenty-first year.

In the case of candidates for the Senior Class who have previously been members of the Junior Class, the examinations of that year will suffice, if creditably passed; and those who failed to pass, may, upon further study, apply again for examination in September, provided their record is not too unsatisfactory. The regular examinations for this purpose will begin on Tuesday, September 25th, 1900, at 9 a. m. at the Law School, 1417 Locust Street.

New applicants for admission as Seniors will be examined at the same time, and upon the following subjects: Commercial Paper, Sales, Bailments, Agency, Torts, Criminal Law, and Common Law or Code Pleading.

Admission to the Junior Class may be held at any time during the year; to the Senior Class, after the examination in September, it will be granted only upon special examination, at a time fixed by the Dean upon application, not later than the first week of school after the Christmas holidays; and no person will be admitted a member of the Senior Class as a candidate for a degree after that time; nor at any time upon any certificate of attainments, or previous study or attendance elsewhere.

COURSE OF STUDY.

The course for the degree of LL.B. is two years of thirty-six weeks each, exclusive of holidays. The recitations are held at 8:45 to 9:45 a. m., and at 5 to 6 p. m., with a few additional lectures at 4 p. m. Moot Court on Saturday mornings. Written examinations are at 2 p. m., at intervals throughout the year upon the completion of each topic.

JUNIOR CLASS.

ELEMENTARY LAW. *Robinson and Blackstone.* Forty lectures.
Curtis.

CONTRACTS. *Bishop.*

BILLS AND NOTES. *Tiedeman.* } Sixty-two lectures. Nagel.

TORTS. *Cooley.*

NEGLIGENCE. *Whittaker's Smith.* } Sixty-two lectures. Bryan.

SALES. *Benjamin.* } Sixty-two lectures. Eliot.

BALIMENTS. *Hale.* }

AGENCY. *Mechem.* Twenty lectures. Coste.

CRIMINAL LAW. *Clark.* Twenty lectures. Bishop. Johnson.

PLEADING. { Common Law. *McKelvey.* } Forty lectures.
Code. *Bryant.* } Curtis.

DAMAGES. *Sedgwick.* Fifteen lectures. Richards.

SENIOR CLASS.

REAL PROPERTY. *Tiedeman.* Fifty lectures. Thayer.

CORPORATIONS. Thirty-one lectures. Lionberger.

DOMESTIC RELATIONS. *Schuster.* Thirty lectures. Curtis.

EVIDENCE. *Greenleaf.* Thirty lectures. Robert.

STATUTES OF LIMITATIONS AND FRAUDS. Ten lectures. Lionberger.

ADMINISTRATION. *Abbott.* Twenty lectures. Maginn.

CONSTITUTIONAL LAW. *Cooley.* Fifteen lectures. Judson.

JURISDICTION OF FEDERAL COURTS. Ten lectures.
INTERNATIONAL LAW. Fifteen lectures. Finkelnberg.
PARTNERSHIP. *Mechem*. Fifteen lectures. Sale.
EQUITY. *Bisham*. Thirty lectures. Thayer.
HISTORY OF LAW. Thirty lectures. Curtis.
MOOT COURT. Once a week for both classes.

The above courses are subject to slight changes from year to year.

GRADUATION.

Members of the Junior Class, in order to pass into the Senior Class, must attain an average of 65 per cent in the examinations of the Junior Year. Members of the Senior Class in order to be admitted to the final examination for the degree of LL.B., must attain an average of 65 per cent in all the examinations of both years. The above examinations are all written and are conducted by the Faculty.

The examination for the degree of LL.B. is prescribed and conducted by a committee of the Advisory and Examining Board. This examination is also written and occupies about one week. The Board is composed of leading members of the judiciary and bar of St. Louis, selected by the Directors of the University. Each senior is required to present, on or before May 15, an original thesis upon a legal topic selected by the Faculty. The subject of the thesis for the class of 1899 was: "The Police Power; Its Legitimate Scope and Limitations."

The degree of LL.B. conferred by the University entitles the holder to admission to the Bar of Missouri without further examination.

MOOT-COURT.

A Moot-Court is held weekly throughout seven months of the year. It is conducted, as nearly as possible, with the forms of an ordinary court of justice, and students are expected to draw pleadings in the cases assigned to them, and to conduct them through all the stages of a legal or equitable suit before trying the issue in the Moot-Court. Members of the Senior Class may be appointed to sit as Associate Justices, and required to write opinions. The cases will be selected to illustrate the subjects studied by the classes and will be made, so far as possible, means of instruction, not only in practice, but in the doctrines of the law. Both classes will be assigned to argue cases in these courts. The Moot-Court Record is a weekly, published by the School, containing the Statements of Facts, Briefs and Opinions.

FEES AND EXPENSES.

The annual fee for attendance in either class is \$80, payable in advance. There are no extra charges of any kind. No reduction will be made from the term fee, nor any part of it returned for absence from any cause.

Good board and lodging can readily be obtained in the city at from \$4 to \$5 per week. The expenses may be lessened to students rooming together. The average price paid for board with rooms during the last two or three years by students in good houses near the Law

School is believed to have been not over \$20 per month, while some have obtained it as low as \$15.

Those who find it necessary to earn a part of their living in other pursuits while taking the course can do so by lengthening that course from two to three years, taking a proportionate part of the class-work (to be designated by the Faculty according to circumstances of each case) in each year. Every facility will be extended to them for such an arrangement; and the charge for tuition in such cases will only be for two years; but no other diminution of the daily requirements of attendance and study will be sanctioned, except in the case of special students not candidates for a degree.

The expense of text-books for the entire course, if purchased new and of the latest editions, is about \$75. This sum may be materially reduced by the purchase of second-hand books which may be usually had in considerable variety. All the books used in recitation may be found in the Library and can be studied there free of charge, but not taken from the room.

SCHOLARSHIPS AND PRIZES.

In pursuance of the terms of a donation of \$6,000 heretofore made to the University for the benefit of the Law School, *six free scholarships* are established in this department; also an annual prize of \$50 in money for the best thesis upon some legal topic, to be publicly awarded at Commencement. Competition for this prize is confined to the regular members of the graduating class in each year under regulations duly announced.

Applicants for *free scholarships* should apply in person or by letter to the Dean, on or before the fifteenth day of September, furnishing written testimonials of at least two responsible persons, that the pecuniary circumstances of the applicant are such as to make him deserving of this assistance, that he is of good character and standing, and that he has received a good English education at least. Other things being equal, preference will be shown to candidates who have received a collegiate education, and especially to those who have done this wholly or partially by their own efforts. Applicants not personally known to any of the Faculty will do well to state fully and precisely their age, place of birth and residence, present occupation, education (both general and legal), and any other circumstances that may be of weight in making a selection. Such communications will be held strictly confidential.

As the applicants for *free scholarships* are usually far in excess of the number that can be given, no student will hereafter have the benefit of such scholarship for more than one year. As far as practicable, the scholarships will be equally divided between the two classes — depending upon the number and the success of the candidates for scholarship in either class.

Two members of each class have an opportunity to earn their tuition and a small salary in addition, by service as librarians, and in other capacities connected with the work of the School. Applications for such positions must be made in person, on or before the fifteenth day of September.

ADVANCED CLASS.

An Advanced Course, on the law of Extraordinary Remedies, open to all graduates of this school and to members of the bar, is conducted during the school year, by Hon. Jacob Klein, Judge of the St. Louis Circuit Court. Tuition, twenty dollars.

For further information, inquiries may be addressed to Wm. S. CURTIS, Law School Building, 1417 Locust Street, St. Louis, Mo., or the Secretary of Washington University.

**ST. LOUIS AND MISSOURI MEDICAL
COLLEGE.**

(MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR.

1899-1900.

SESSION OPENS Thursday, September 28.

CHRISTMAS VACATION, December 22 to January 1, inclusive.

**COMMENCEMENT (Graduating Exercises), Thursday, April 26,
1900.**

**HOLIDAYS: Thursday of Fair Week, Thanksgiving Day.
Washington's Birthday.**

ST. LOUIS AND MISSOURI MEDICAL COLLEGE.

BOARD OF OVERSEERS.

ELISHA H. GREGORY, Chairman.

GEORGE E. LEIGHTON. G. BAUMGARTEN, M. D., Sec'y.

HENRY HITCHCOCK. HERMAN TUHOLSKE, M. D.

JAMES E. YEATMAN. HORATIO N. SPENCER, M. D.

WASHINGTON E. FISCHEL, M. D.

FACULTY AND INSTRUCTORS.

J. B. JOHNSON, M. D.,

Professor Emeritus of the Principles and Practice of Medicine.

P. GERVAIS ROBINSON, M. D., LL.D.,

Professor Emeritus of the Principles and Practice of Medicine.

J. K. BAUDUY, M. D., LL.D.,

Professor Emeritus of Psychological Medicine and Diseases of the Nervous System.

J. M. SCOTT, M. D.,

Professor Emeritus of Obstetrics.

WINFIELD S. CHAPLIN, LL.D.,

Chancellor of the University.

ELISHA H. GREGORY, M. D., LL.D.,

Professor of the Principles of Surgery.

G. BAUMGARTEN, M. D.,

Professor of the Practice of Medicine, Dean.

H. TUHOLSKE, M. D.,

Professor of the Practice of Surgery.

T. F. PREWITT, M. D.,
Professor of the Principles of Surgery.

*H. H. MUDD, M. D.,
Professor of the Practice of Surgery and Clinical Surgery, Dean.

W. E. FISCHEL, M. D.,
Professor of Clinical Medicine.

ROBERT LUEDEKING, M. D.,
Professor of the Diseases of Children.

JOHN P. BRYSON, M. D.,
Professor of Genito-Urinary Surgery, Treas.

JUSTIN STEER, M. D.,
Professor of Clinical Medicine.

W. A. HARDAWAY, M. D., LL.D.,
Professor of Diseases of the Skin and Syphilis.

H. N. SPENCER, A. M., M. D., LL.D.,
Professor of Oatology.

W. C. GLASGOW, A. B., M. D.,
Professor of Clinical Medicine and Laryngology.

HENRY SCHWARZ, M. D.,
Professor of Obstetrics.

PAUL Y. TUPPER, M. D.,
Professor of Applied Anatomy and Operative Surgery.

E. W. SAUNDERS, M. D.,
Professor of Diseases of Children and Clinical Midwifery.

N. B. CARSON, M. D.,
Professor of Clinical Surgery.

J. B. SHAPLEIGH, M. D.,
Professor of Oatology, Secretary.

* Died, November 20, 1899.

SIDNEY P. BUDGETT, M. D.,
Professor of Physiology, Registrar.

JOHN GREEN, M. D.,
Special Professor of Ophthalmology.

FRANK R. FRY, M. D.,
Professor of Diseases of the Nervous System.

F. A. GLASGOW, M. D.,
Professor of Clinical Gynecology.

H. G. MUDD, M. D.,
Professor of Fractures and Dislocations, and Clinical Surgery.

E. M. SENSENEY, M. D.,
Professor of Diseases of the Throat, Nose, and Chest.

A. J. STEELE, M. D.,
Professor of Orthopedic Surgery.

JOSEPH GRINDON, M. D.,
Professor of Clinical Dermatology and Syphilis.

A. V. L. BROKAW, M. D.,
Professor of Clinical Gynecology.

AMAND RAVOLD, M. D.,
Professor of Bacteriology and Hygiene.

CHARLES NAGEL, LL.B.,
Professor of Medical Jurisprudence.

W. H. WARREN, Ph. D.,
Assistant Professor of Chemistry.

R. J. TERRY, M. D.,
Assistant Professor of Anatomy.

ELSWORTH SMITH, JR., M. D.,
Clinical Professor of Medicine.

D. C. GAMBLE, M. D.,
Clinical Professor of Diseases of the Ear.

CHARLES H. DIXON, M. D.,
Clinical Lecturer on Surgery.

HENRY L. WOLFNER, M. D.,
Clinical Lecturer on Diseases of the Eye.

GREENFIELD SLUDER, M. D.,
Clinical Lecturer on Diseases of the Nose, Throat, and Chest.

EDWIN C. BURNETT, M. D.,
Clinical Lecturer on Syphilis.

VILRAY B. BLAIR, M. D.,
Lecturer on Descriptive Anatomy.

A. E. EWING, M. D.,
Clinical Lecturer on Diseases of the Eye.

LOUIS H. BEHRENS, M. D.,
Clinical Lecturer on Diseases of the Chest.

ALBERT E. TAUSSIG, M. D.,
Clinical Lecturer on Medicine.

JOSEPH MASERANG, JR., Ph. G.,
Lecturer on Materia Medica and Pharmacy.

THEODOR KODIS, M. D.,
Lecturer on Pathology, and Curator of the Museum.

HENRY C. HARTMAN, M. D.,
Clinical Lecturer on Orthopedic Surgery.

GIVEN CAMPBELL, JR., M. D.,
Clinical Lecturer on Diseases of the Nervous System.

GEORGE M. TUTTLE, M. D.,
Lecturer on Therapeutics.

WASHINGTON UNIVERSITY MEDICAL DEPARTMENT.

THE ST. LOUIS AND MISSOURI MEDICAL COLLEGE.

SESSION 1899-1900.

Towards the close of the last scholastic year the respective Faculties of the St. Louis Medical College and the Missouri Medical College took certain preliminary steps looking to the union of these two institutions. With this end in view both faculties resigned, and in due course combined to form the Medical Department of Washington University.

The Missouri Medical College was founded in 1840, and with the exception of the years of the Civil War has given continuous instruction up to the present time.

The St. Louis Medical College was founded in 1842, and has just completed its 57th consecutive annual course. Under an ordinance enacted in 1891, it was created the Medical Faculty of the Washington University, and has continued in that relation up to the present year.

This union of the two oldest and most representative of the medical colleges in the West was undertaken and successfully consummated solely in behalf of a broader and more thorough training, and we firmly believe that this object will be accomplished.

As will be seen in another place, there has been a considerable increase in the size and effectiveness of the teaching force, the University has at its disposal two new and finely equipped college buildings, and the facilities for clinical work have been greatly multiplied.

The graded course of study now some time established has been elaborated and extended as experience has dictated, and always in the direction of higher standards and broader teaching. Now that four years of attendance prior to graduation have been adopted and required from all candidates, it has become possible to introduce new features in the plan of instruction, by which the student will gain greater leisure for his work and more liberty in the selection of his studies.

A distinctive feature of the Medical Department of the Washington University is the requirement of and full provision for extended laboratory work, by every student, in all the fundamental subjects of medical study. The extent and scope of the required practical work in Anatomy and in Chemistry have been greatly enlarged, and full laboratory courses are given in Histology, in Medical Chemistry, in Pathological Anatomy, and in Bacteriology. The actual making of post-mortem examinations by the student himself will be made a feature of the instruction.

In general the method of teaching pursued in this institution will be, so far as practicable, that of direct personal instruction of each student. In addition to the usual methods of lectures, didactic and clinical, there will be recitations from the text-books, and clinical conferences, in which the student examines the patient and submits a

written report of his diagnosis for criticism and discussion.

HOSPITALS AND DISPENSARIES.

Especial attention is called to the unusual clinical advantages offered the student in connection with the large number of Hospitals and Dispensaries directly under the control of the Medical Department of the Washington University.

SAINT LOUIS MULLANPHY HOSPITAL.

This is the oldest and most widely-known general hospital in the West. Its extensive general and special clinics are conducted by members of this Faculty, and are devoted wholly to the instruction of its students.

SAINT JOHN'S HOSPITAL.

Saint John's Hospital, recently enlarged by new buildings, is in charge of the Sisters of Mercy. Its medical and surgical management is entirely controlled by this Faculty. This institution is situated within a few blocks of the college. In addition to the hospital proper there is a large out-door attendance of patients in the several dispensaries.

POLICLINIC HOSPITAL AND DISPENSARIES.

The Polyclinic Hospital, which adjoins one of the main buildings of the college, contains a number of wards and rooms that are especially maintained for the reception of patients treated in the college clinics, a matter of great convenience and utility in teaching. The dispensaries in connection with the Hospital are unusually largely at-

tended, and are so organized in general and special clinics that the greatest abundance of material for instruction can always be utilized. In addition to the usual reception and consultation rooms, pharmacy, etc., there is a handsome surgical amphitheater capable of seating over four hundred students.

BETHESDA HOSPITAL.

The Bethesda Hospital, with its maternity and foundling departments, is under the direct supervision of Professor E. W. Saunders, and is accessible to the senior students of this college only. Opportunity is here afforded for exercises in obstetrical diagnosis, and in acquiring practical experience in midwifery. At the Foundling Hospital the student is made familiar with infantile diseases and artificial feeding.

O'FALLON DISPENSARY.

The O'Fallon Dispensary is a special clinical department of the college with general medical and surgical clinics and the various special clinics fully represented.

An Obstetrical Out-clinic attached to the Dispensary affords the senior students special opportunities for practical work in this important branch of medicine.

At the City Hospital, the Female Hospital, the Insane Asylum, and the Poor House, the college stands on equal terms with others in the privilege of visiting and clinical instruction.

The attention of students is called to the fact that a corps of assistant physicians to the various municipal

hospitals is appointed each year after competitive examination, to which all members of the graduating class are eligible.

We beg to direct attention to the fact that hitherto four-fifths of the positions in the city hospitals have been filled by the graduates of the Saint Louis and Missouri Medical Colleges.

THE COURSE OF STUDY.

The curriculum is based upon the amount and kind of work required to be done by candidates for the degree. The courses to be followed are graded in such a manner that all the fundamental studies and general courses are required to be taken before special courses and advanced work can be pursued. Of the latter a certain part is optional or elective; and of the large amount of clinical work a considerable part is made elective in order that the student may enjoy some liberty in the pursuit of the higher studies and specialties. Thus the greater part of work required for the degree shall consist of obligatory courses and the remainder may be chosen out of a large assortment of electives. In the choice of electives the student will be advised by members of the Faculty.

Ordinarily, a course of three hours a week or four to six hours laboratory work for one semester is counted as one unit of work. Whenever a student has completed a unit satisfactorily the teacher will issue to him, with or without examination, as seems necessary to determine his standing, a certificate which shall be final evidence of the student's having passed in the respective course. In case

the student does not attain to a satisfactory mark in that unit, he must go over the subject a second time or present himself for examination in it at the end of the next semester. Entrance upon studies of the third and fourth year will be permitted only upon evidence that he has performed the total amount of work required for the first and second year. At the end of the fourth year the degree will be conferred upon presentation of evidence of satisfactory performance of all work required for the third and fourth year, or upon final examination in these.

TOTAL WORK REQUIRED.

To fulfill the conditions for graduation, the minimum of work to be done in the First and Second Year is 28 units, viz.: the required work in Chemistry 4 units, Anatomy 6, Histology 2, Physiology 2, Materia Medica and Therapeutics $3\frac{1}{3}$, Pathology and Bacteriology 6, Medicine, $2\frac{2}{3}$, Dermatology $\frac{1}{3}$ — total, $26\frac{1}{3}$; the remainder (of at least $1\frac{2}{3}$ units) must be chosen out of ($5\frac{2}{3}$ units of) electives.

The minimum of work required in the Third and Fourth Year is 40 units. A large part of this is clinical work, which is to a great extent elective; it must be so chosen that the candidate presents certificates of satisfactory work in

Medicine (exclusive of $2\frac{2}{3}$ units in Second Year, but including Clinics of Diseases of Nose, Throat, and Chest, $\frac{1}{2}$ units)	8 units.
Pediatrics	3 "
Diseases of the Nervous System	1 $\frac{1}{2}$ "

Surgery (including Orthopedics 2 units)	10	units.
Genito-Urinary Surgery	1½	"
Gynecology	½	"
Obstetrics	4½	"
Dermatology	1	"
Ophthalmology	1	"
Otology	1	"
Hygiene	½	"
Forensic Medicine	1	"
Total	33½	units,

the remainder ($6\frac{2}{3}$ units) to be made up of electives and a large variety of clinical instruction, allowing the individual student considerable liberty of choice.

The following table exhibits the distribution of obligatory and elective courses by Semesters: —

OBLIGATORY.	ELECTIVE.
First Year. 1st Semester:	
Chemistry	(2 units)
Anatomy	(3)
Histology	(1)
Materia Medica etc.	(1)
2d Semester:	
Chemistry	(2)
Anatomy	(2)
Histology	(1)
Physiology	(1)
Materia Medica etc.	(1)
Second Year. 3d Semester:	
Physiology	(1)
Mat. Med. & Therap.	(2)
Pathology	(3)
Medicine	(1)
Chemistry	(1)
Anatomy	(1)
Physiology	(1)

OBLIGATORY.**ELECTIVE.****Second Year. 4th Semester:**

Anatomy	(1)	Anatomy	(1)
Mat. Med. & Ther.	(1)	Pathology	(1)
Pathology	(3)	Clinics	(1)
Medicine	(1)		
Dermatology	(1)		

Third Year. 5th Semester:

Medicine	(1)	Clinics	(7)
Pediatrics	(1)		
Dis. Nervous System	(1)		
Surgery	(1)		
Obstetrics	(1)		
Dermatology	(1)		

6th Semester:

Medicine	(1)	Clinics	(8)
Pediatrics	(1)		
Surgery	(1)		
Obstetrics	(1)		
Ophthalmology	(1)		
Otology	(1)		

Fourth Year. 7th Semester:

Medicine	(1)	Clinics	(10)
Pediatrics	(1)		
Surgery	(1)		
Genito-Urinary Surgery	(1)		
Obstetrics	(1)		
Ophthalmology	(1)		
Hygiene	(1)		

8th Semester:

Medicine	(1)	Dis. Nervous System	(1)
Surgery	(1)	Gen.-Ur. Surgery	(1)
Obstetrics	(1)	Clinics	(10)
Forensic Medicine	(1)		

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the College will be received upon the following conditions: —

1. Satisfactory certificates of good moral standing.
2. (a) The presentation of a College degree in Letters or Science, (b) of a diploma or certificate of graduation from an Academy or High School, or (c) of a certificate showing that the candidate has passed the entrance examination to an accredited College or Scientific School, or (d) the special preliminary examinations prescribed by State regulations for admission to the study of medicine, or (e) passing an examination in the following branches: English grammar and composition, arithmetic, algebra as far as quadratics, elementary physics, United States history, geography, and Latin equivalent to one year in a High School.” *

These examinations will be conducted by examiners appointed by the Chancellor of Washington University.†

Inasmuch as the requirements preliminary to the study of medicine and to the registration of physicians vary somewhat in the different States, it is particularly enjoined upon all students to conform in all respects, to the special regulations governing admission to medical practice in the State in which they intend to reside.

* Candidates who fail in the examination in Latin will be given an opportunity to make up the deficiency before the beginning of their second year.

† Regular entrance examinations will be held on September 25th and 26th, 1900. Candidates may, however, arrange for special examination during the summer by applying to the Dean.

ADMISSION TO ADVANCED STANDING.

Regular students candidates for the degree will be admitted to the Second Year class upon evidence of having completed a majority of the studies of the First Year. Entrance upon the work of the Third Year is conditioned upon satisfactory completion of all the work required in the first two years, but a student defective in one branch only will be admitted to the Third Year class *on condition* that he make up the deficiency by the end of the Third Year.

Students who have pursued one or more years of study in other reputable medical schools will be admitted to the class to which the work already done entitles them; the evidence of this to consist of certificates from the former school, or examination in the respective branches.

Graduates of Colleges of Letters or Science who have followed a sufficient course in Biology may enter the Second Year class and receive credit for so much of the First Year work as they have already done.

GRADUATE COURSES.

Physicians, graduates of an accredited regular school of medicine, are admitted to any of the courses of instruction given in the College, subject to such restrictions as may grow out of the assignment of hours in the programmes of work laid out for the several classes, and to the single further restriction that, in the case of those desirous of taking advanced laboratory work, such proficiency in elementary work as may be necessary for its

successful prosecution will be required. A certificate of actual attendance will be given upon request.

REQUIREMENTS FOR GRADUATION.

- (1) The candidate must be twenty-one years of age.
- (2) He must be of good moral character (which includes unexceptionable conduct while at College).
- (3) He must have attended not less than four regular annual courses of medical instruction, the last of which must have been in this College.
- (4) He must, by the first of April, have notified the Dean, in writing, of his intention to present himself as a candidate for the degree.
- (5) He must have discharged all indebtedness to the College.
- (6) He must present evidence of satisfactory performance of at least the minimum amount of work required in the course.

FEES.

(PAYABLE IN SEPTEMBER OF EACH YEAR.)

Matriculation Fee (payable but once)	\$ 5 00
Fees for each year	100 00

No charge is made for laboratory supplies or use of anatomical material.

No charge is made for demonstrators' or hospital tickets, or for graduation.

The matriculation fee (\$5.00), and the fee for the year (\$100.00), are payable to the Dean or the Registrar at the time of matriculation, at the beginning of the college year, in September.

Students are required to provide themselves with such articles of chemical apparatus as test-tubes, watch-glasses, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

All indebtedness to the College must be discharged before entering on the final examination for graduation.

NOTE.—Graduates of the St. Louis Medical College and of the Missouri Medical College have perpetual free admission, but will be charged a laboratory fee of \$20.00.

Graduates, under three years, of other medical schools, will be charged the matriculation fee and twenty dollars, for attendance during a college year or part of a year; they will also be charged a laboratory fee of \$20.00.

Graduates of other medical schools, of three or more years' standing, will be charged the matriculation fee and a laboratory fee of \$20.00.

Graduates in medicine who may be admitted to the College as candidates for a degree will be charged the matriculation fee and the fee for one year.

Special Courses of Instruction may be arranged by applying to the Dean.

SCHOLARSHIPS.

1. The HENRY HITCHCOCK SCHOLARSHIP is held by Hon. Henry Hitchcock, and entitles the beneficiary to one year's free tuition.

2. The GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Diseases of Children, entitles the holder to one year's free tuition.

PRIZES.

Two "GEORGE F. GILL" prizes are offered to the students of the College, viz.: —

1. One prize of \$50 to be awarded at the end of the First Year to the member of the class who shall have made the highest grade in anatomical work assigned to the First Year class.

2. One prize of \$50 to be awarded to a member of the graduating class, of high general standing, who shall have

done specially good work in the department of *Diseases of Children*.

3. A CURTMAN prize will be awarded at the end of the First Year to the member of the class who shall have made the highest grade in Chemistry.

The George F. Gill prizes for 1899 were awarded to Dr. Leonard Keehn, a member of the Graduating Class, for high general average and meritorious work in the study of Diseases of Children ; and to Mr. Justin E. Ross, a member of the Junior Class, for the best work in Anatomy ; Messrs. H. M. Loewenstein and A. L. Brandt receiving honorable mention.

The CURTMAN prizes in *Chemistry* for 1899 were awarded to F. C. Simon, of the Senior Class ; J. P. Chandeysson, of the Second Year Class ; and John Widney of the First Year Class.

STUDENTS.

NAME.	RESIDENCE.
Aitken, W. A.	Kansas.
Albrecht, F. B.	Missouri.
Althaus, C.	Missouri.
Apperson, E. D.	Missouri.
Barry, F. W.	Illinois.
Beatty, J. D.	Iowa.
Benner, W. J.	Illinois.
Benway, W. H.	Missouri.
Blakemore, J. E., M. D.	Arkansas.
Boesewetter, R.	Missouri.
Bohn, J. C., Jr., Ph. B.	Illinois.
Boles, D. S.	Illinois.
Bradley, J. M.	Missouri.
Brandt, A. L.	Missouri.
Brown, E. R.	Missouri.
Brown, L. S.	Missouri.
Buchanan, J. McA.	Missouri.
Bunyan, M. V.	Illinois.
Burns, R., Jr.	Missouri.
Campbell, R. L.	New York.
Cannady, E. W.	Illinois.
Caplan, L., M. D.	Missouri.
Carver, F. H.	Missouri.
Caughlin, W. T.	Canada.
Chandeysson, P. I.	France.
Chapman, O. G.	Missouri.
Cochran, F. B.	Missouri.
Corner, A. W.	Missouri.
Cox, B. F., M. D.	Missouri.
Craig, J. A.	Missouri.
Crosby, T. A.	Missouri.
Crow, C. C.	Illinois.
Cummings, R. N.	Arkansas.

NAME.	RESIDENCE.
Davie, J.	Illinois.
Davis, H. W.	Illinois.
Deichmann, O. H.	Illinois.
DeMenil, H. N.	Missouri.
Dillon, W., A. B., A. M.	Missouri.
Downey, L. J.	Indiana.
Drake, C. F.	Missouri.
Drake, J. E.	Florida.
Dunlap, R. E., B. S.	Iowa.
Eisenhower, C. W.	Philadelphia.
Elbrecht, O. H., Ph. B. and Ph. C.	Missouri.
Estil, F. L.	Colorado.
Evers, E. T.	Missouri.
Fahlen, F.	Missouri.
Farrell, J. J.	Missouri.
Faulbaum, A. W., Ph. G.	Illinois.
Ferrell, B.	Illinois.
Flagge, P. W.	Illinois.
Fleeger, A. B.	Missouri.
Forder, W. C.	Missouri.
Forsyth, R. C.	Missouri.
Frame, H. G.	Missouri.
Frazer, S. H.	Missouri.
Fuehrmann, R. H.	Missouri.
Gable, E. G.	Missouri.
Gallagher, J. C.	Nebraska.
Gardner, A. J.	Missouri.
Gehrung, J. A., A. B. and A. M.	Missouri.
George, C. A.	Arkansas.
Gettys, H. P.	Missouri.
Gimbel, C. E.	Missouri.
Glahn, C. P., Jr.	Missouri.
Gordon, F. N., A. B.	Missouri.
Gray, H., M. D.	Missouri.
Greensfelder, H. B., Ph. B.	Missouri.

NAME.	RESIDENCE.
Greer, B. E.	Illinois.
Grim, E. C.	Missouri.
Guhman, C. N.	Missouri.
Gunn, J. C.	Illinois.
Hagebush, O. J.	Illinois.
Hardy, J. B.	Illinois.
Hardy, W. F.	Missouri.
Harris, I. J.	Missouri.
Hempel, M.	Missouri.
Hertel, H. G., M. S.	Illinois.
Hess, J. D.	Missouri.
Hightfill, W. E., M. D.	Missouri.
Hinkle, C. G.	Arkansas.
Hofmann, O., Jr.	Kansas.
Hogg, G., B. S.	Missouri.
Holben, R. E.	Illinois.
Horton, W. N.	Illinois.
Humphrey, J. H.	Missouri.
Hunker, L., Jr.	Missouri.
Irwin, J. M., A. B.	Illinois.
Isele, G. H.	Illinois.
Jacobs, F. M.	Missouri.
Joesting, F. C.	Illinois.
Jungk, C. G. W.	Missouri.
Keller, J.	Illinois.
Klmball, A. C., A. B.	Missouri.
Kirchner, W. C. G., A. B.	Missouri.
Kitchen, J. E.	Indiana.
Kleycamp, A. F.	Missouri.
Klie, C. M. T., Ph. G.	Missouri.
Klinefelter, M. L.	Illinois.
Knecht, W. C.	Missouri.
Krenning, W. G.	Missouri.
LeGrand, D. W.	Illinois.
Leusley, M. E.	Missouri.

NAME.	RESIDENCE.
Lionberger, J. R.	Missouri.
Loffhagen, E. H.	Missouri.
Lowenstein, H. M.	Missouri.
Luedde, W. H., M. D.	Illinois.
McBratney, E. W., Ph. B.	Illinois.
McClintock, W. J.	Illinois.
McCully, A.	Missouri.
McCutchan, G. L.	Missouri.
McGlothan, A. B.	Missouri.
McKenna, J. J.	Missouri.
McQuillan, J. A.	Illinois.
Maloy, E. D.	Texas.
Marshall, A.	Illinois.
Martin, J. E.	Arkansas.
May, A.	Illinois.
Mead, W. J. C.	Missouri.
Miller, H. B.	Missouri.
Miller, H. E.	Missouri.
Moeller, C. E.	Illinois.
Montague, E. L.	Missouri.
Montgomery, C. C., D. V. S.	Illinois.
Murphy, B., A. B., A. M.	Missouri.
Nautze, C. C.	Missouri.
Nelson, W. L.	Missouri.
Niemeyer, C. H.	Illinois.
Nies, F. H.	Missouri.
Pace, H.	Arkansas.
Patrick, P. T.	Missouri.
Pfeffer, P. A.	Missouri.
Pfeiffenberger, J. W.	Illinois.
Pierce, C. E.	Illinois.
Pierce, W.	Missouri.
Pinkerton, B. G.	Syria.
Pitman, J. B.	Missouri.
Ponder, E. T.	Arkansas.

NAME.	RESIDENCE.
Quinn, G. L.	Missouri.
Rafter, J. G.	Missouri.
Rawlings, C. L.	Indiana.
Reid, E. W.	Missouri.
Reyburn, A. V., Jr.	Missouri.
Ross, J. E.	Missouri.
Reuss, A. L.	Illinois.
Rothman, P. M.	Missouri.
Rothschild, S.	Missouri.
Rush, W. H., B. Sc., A. B., A. M.	Missouri.
Savage, C. C.	Indian Territory.
Scheve, E. F.	Missouri.
Schneider, B. F.	Illinois.
Schreiber, A. W.	Indiana.
Schulz, H. E.	Illinois.
Scott, C. D., A. B.	Missouri.
Scott, S. M.	Arkansas.
Scott, T. A., B. S.	Indian Territory.
Shanks, A. L.	Missouri.
Shaw, S. L., D. V. S.	Missouri.
Short, W. H.	Missouri.
Simpson, J.	Illinois.
Slayden, J. E.	Arkansas.
Sloan, G. A.	Missouri.
Smith, A. J.	Missouri.
Smith, N. E.	Missouri.
Smith, O. W.	Missouri.
Snodgrass, C. A.	Missouri.
Spannagel, W. C., Ph. G.	Illinois.
Spitze, E. C.	Illinois.
Stephens, G. K.	Arkansas.
Stephens, W. S.	Missouri.
Stiers, F. L.	Illinois.
Sullivan, J. W.	Missouri.
Switzer, C.	Missouri.

NAME.	RESIDENCE.
Talbot, L. H., M. D.	Missouri.
Thebus, R. P.	Illinois.
Thompson, H. L. I.	Illinois.
Thompson, J. I., M. D.	Illinois.
Trottman, C. A.	Missouri.
Tuholske, M. C.	Missouri.
Unterberg, H.	Missouri.
Vahlkamp, C. G.	Missouri.
Vincent, C. P.	Arkansas.
Wainright, A. G., Jr.	
Walker, C. F.	Arkansas.
Walker, H. O.	Arkansas.
Walser, O. T.	Missouri.
Wear, N. W.	Illinois.
Whelpley, F. L.	Missouri.
Wichman, A. G.	Missouri.
Widney, J. T. B.	Kansas.
Williams, D. B., A. B.	Missouri.
Wilson, H. V.	Illinois.
Wilson, S. W.	Texas.
Winegar, E. F.	Arkansas.
Winkler, F. L., M. D.	
Winn, R. M.	Missouri.
Wise, P. L.	Missouri.
Woldridge, H. L.	Missouri.
Worden, G. K.	Illinois.
Wright, C. M., B. Sc.	Illinois.
Wyckoff, G. A.	Illinois.
Wylder, M. K., B. Sc.	Illinois.
Zieber, W. H., M. D.	Missouri.

HOSPITAL APPOINTMENTS.

Positions as internes at the St. Louis City and Female Hospitals are awarded each year, after competitive examination conducted by the Board of Health.

The successful candidates from the St. Louis Medical College in 1899 were: Drs. Fred. G. Abeken, R. H. Churchill, Percy J. Farmer, Oscar H. Fischer, R. Emmett Kane, Leonard Keehn, Raymond Outhouse, Joseph A. Pettit.

Those from the Missouri Medical College were: Drs. F. C. Simon, Jos. L. Boehm, J. R. Graham, O. O. H. Campbell, Wm. H. Horine, Joseph Bejach, A. S. Bleyer, and F. A. Lane.

Physicians who wish to receive the Annual Announcement of the Medical Department of Washington University regularly, are requested to send their address to the Secretary of the Faculty, Dr. John B. Shapleigh, No. 2608 Locust Street; notice of change of residence is also desired. All further information may be obtained by addressing or calling upon the Dean,

**DR. G. BAUMGARTEN,
No. 2643 Chestnut Street.**

MISSOURI DENTAL COLLEGE.

(DENTAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR 1899-1900.

REGULAR ENTRANCE EXAMINATIONS: Tuesday and Wednesday, September 26-27, 1899.

OPENING OF SESSION, Thursday, September 28, 1899.

HOLIDAY, Thanksgiving Day, Thursday, November 30, 1899.

VACATION, December 23, 1899, to January 2, 1900, inclusive.

HOLIDAY, Washington's Birthday, Thursday, February 22, 1900.

EXAMINATION of Junior and Middle Classes begins Thursday, April 12, 1900.

COMMENCEMENT, Thursday, April 26, 1900.

Dentists who wish to receive the Annual Announcement regularly, or those who have changed their address, are requested to notify the Secretary of the Faculty,

**DR. O. W. BEDELL,
1909 Lafayette Avenue.**

Students will be registered in the College Building by Dr. Sidney P. Budgett.

Any further information may be obtained by addressing or calling upon the Dean.

**DR. ALBERT H. FULLER,
Columbia Building.**

MISSOURI DENTAL COLLEGE.

BOARD OF OVERSEERS.

JAMES E. YEATMAN, President.

HENRY HITCHCOCK.

ALBERT H. FULLER, D.D.S., Secretary.

HENRY J. MCKELLOPS, D.D.S.

JAMES B. NEWBY, D.D.S.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor of the University.

ELISHA H. GREGORY, M. D., LL.D.,
Professor of the Principles and Practice of Surgery.

ALBERT H. FULLER, M. D., D.D.S., Dean,
Professor of Operative Dentistry.

ORION W. BEDELL, M. D., D.M.D., Secretary,
Professor of the Institutes of Dental Science.

SIDNEY P. BUDGETT, M. D.,
Professor of Physiology and Histology.

CHAS. W. RICHARDSON, D.D.S.,
Professor of Prosthetic Technics.

ROBERT R. VAUGHN, D.D.S.,
Professor of Operative Technics.

NORMAN B. CARSON, M. D.,
Professor of Oral and Clinical Surgery.

ROBERT J. TERRY, M. D.,
Assistant Professor of Descriptive Anatomy.

WILLIAM H. WARREN, A. M., Ph. D.,
Assistant Professor of Chemistry.

GEORGE S. TUTTLE, M. D.,
Assistant Professor of Materia Medica and Therapeutics.

HERMAN F. CASSELL, D.M.D.,
Professor of Mechanical Dentistry.

ARTHUR E. MATTESON, D.D.S.,
Professor of Orthodontia.

JOSEPH MASERANG, JR., Ph. G.,
Lecturer on Materia Medica and Pharmacy.

DEMONSTRATORS.

HERMAN F. CASSELL, D.M.D.,
CHARLES E. STEPHENS, D.M.D.,
Mechanical Dentistry.

ALFRED D. FULLER, D.M.D.,
Crown and Bridge Work.

ROBERT R. VAUGHN, D.D.S.,
WILLIAM G. TEEL, D.M.D.,
Operative Dentistry.

VILROY P. BLAIR,
Anatomy.

CHARLES W. RICHARDSON,
Dental Technics.

CLINICAL INSTRUCTORS.

GEORGE A. BOWMAN, D.D.S.,
W. WICK, D.D.S.,
JAMES B. NEWBY, D.D.S.,
HENRY M. BAIRD, D.D.S.,
THEODORE L. PEPPERLING, D.D.S.,
ABEL J. PROSSER, D.D.S.,
JOHN G. HARPER, D.D.S.,
ORMOND H. MANHARD, D.M.D.,
ALBERT H. FULLER, M. D., D.D.S.,
JOHN TIFFIN, D.M.D.,
ALFRED D. FULLER, D.M.D.,
JOSEPH B. KIMBROUGH, D.M.D.
HARRY D'OENCH, D.M.D.,
CHAS. T. BEDELL, D.M.D.

GRADUATES OF 1899.

NAME.	RESIDENCE.
Alloway, Henry Clinton	Missouri.
Alley, Elwood	Missouri.
Arthur, Willis Bertram, M. D.	Missouri.
Bay, Roy	Missouri.
Black, Robert Elliott	Illinois.
Corder, George Washington	Missouri.
Farrow, Claudious Golder	Arkansas.
Ferguson, Stonewall Jackson	Missouri.
Hoffman, Henry Robert	Missouri.
Hopkins, Merle Robert	Minnesota.
Kendall, Porter	Missouri.
Lansberg, Herman Max	Missouri.
Lehnhard, Philip J., Jr.	Missouri.
Mockbee, Charles Robertson	Missouri.
Mueller, Henry Charles	Illinois.
Nifong, Sylvester Cook	Missouri.
Sappington, Clarence Leffingwell	Missouri.
Sherzinger, Alex.	Missouri.
Schlagenhauf, Edward	Illinois.
Scott, Ira Dudley	Missouri.
Spann, Herman Theodor	Missouri.
Steinmesch, Henry Garette	Missouri.
Stephens, Charles Edmund	Texas.
Temm, William Brantner	Missouri.
Walker, Edward Wilber	Missouri.
Weber, Wilson Rudolph	Texas.
Wild, John	Missouri.
Wild, Rudolph	Missouri.
Willett, Raymond Clair	Iowa.
Wurtz, Eugene David	Illinois.

SENIOR CLASS, 1900.

NAME.	RESIDENCE.
Bass, Andrew Jackson	Missouri.
Bauer, Alfred Gotfried	Missouri.
Bey, John Emil Charles	Missouri.
Dickson, Wesley Baxter	Missouri.
Dunn, Freeland Joseph	Missouri.
Ferrell, Houston Everett	Missouri.
Hartmann, John Michael	Ohio.
Heitzig, Albert William	Missouri.
Henry, L. Q.	Missouri.
Hirschl, Robert O.	Missouri.
Horton, Edward Linn	Missouri.
Isle, Mauzey Whitfield	Missouri.
Kehde, Howard Augustus	Missouri.
Kellar, Harry	Missouri.
Kraft, Louis Henry	Illinois.
Lischer, Benno Edward	Illinois.
Long, Joseph Elmer	Illinois.
McGuire, Eugene	Illinois.
Matkin, Elmer Hicks	Missouri.
Merriwether, Charles Lewis	Missouri.
Pettibone, Jacob Block	Missouri.
Pippin, Bland Nixon	Indiana.
Schwarz, Elmer Henry	Illinois.
Smith, Handy Linn	Missouri.
Staudinger, Paul	Missouri.
Stockhoff, Arthur Martin	Missouri.
Stone, Frank Powell	Missouri.
Straube, Clarel Shipherd	Missouri.
Trauernicht, Fred William	Missouri.
Wavrin, John Arthur	Iowa.
Wolf, Albert William	Illinois.
Wood, Harry Thomas	Missouri.
Wyckoff, Charles	Illinois.

MIDDLE CLASS, 1900.

NAME.	RESIDENCE.
Bohrer, Ernest Evert	Missouri.
Brown, J. Hinton	Missouri.
Crane, LeRoy Vernon Miller	Missouri.
Donnell, Thomas Gresham	Oregon.
Eaton, Howard Holmes	Illinois.
Ellis, H. M.	Missouri.
Fischer, Edward John	Missouri.
Goodrich, Stephen Jones	Missouri.
Griffin, Edward	Missouri.
Haverstick, Edward Everett	Missouri.
Heitman, Frederick Willam	California.
Heitman, H. L.	California.
Hopkins, Frank Cook	Illinois.
Jordan, Carson Gamble	Missouri.
King, Alpheus Carleton	Illinois.
Kuper, B. L.	Missouri.
McCall, Robert Agustus	Illinois.
McDanel, Mark Leroy	Illinois.
McClean, Alexander William	Missouri.
McHenry, Ralph Leonidath	Missouri.
McInerney, Harry William	Kansas.
McKibben, William Frank	Missouri.
Miller, Joseph Sandford	Missouri.
Moore, J. B.	Texas.
Myers, Joel E.	Illinois.
Nash, J. B.	Missouri.
O'Connell, Francis Elias	Missouri.
Powell, Otho Bell	Kentucky.
Sellinger, Owen	Missouri.
Shellhorn, A. L.	Nebraska.
Sone, William James	Missouri.
Stamm, Anton Peter	Missouri.
Strange, Algy Ferdinand	Illinois.

NAME.	RESIDENCE.
Terhellen, Emil William	Missouri.
Terrell, Will George Barkley	Illinois.
Thilenius, Arnold Otto	Missouri.
Van Buskirk, Joe M.	Iowa.
Wagner, Clifford Winfield	Illinois.
Wanamaker, Earl	Missouri.
Westhoff, George Henry Martin	Missouri.
Williamson, Henry Turner	Texas.
Young, William Beastall	Illinois.

JUNIOR CLASS, 1900.

Baeumer, W. E.	Illinois.
Bauer, F. W.	Missouri.
Belk, C. E.	Illinois.
Blain, G. J.	Missouri.
Chapman, J. R.	Oregon.
Diggs, C. W.	Missouri.
Doak, John	Missouri.
Dodge, Homer	Missouri.
Dutcher, W. L.	Missouri.
Gilster, G. B.	Illinois.
Gsanther, A. H.	Nebraska.
Hickey, M.	Missouri.
Ilse, J. W.	Illinois.
Jones, F. C.	Illinois.
Koons, W. A.	Missouri.
Leibrock, E. Z.	Illinois.
Lensley, L. E.	Missouri.
Linder, F.	Illinois.
Lindsey, J. L.	Missouri.
Loney, C. L.	Missouri.
Lupton, S. K.	Tennessee.
McCalmut, O. R.	Missouri.
Meng, C. F.	Illinois.
Miller, F.	Illinois.

NAME.	RESIDENCE.
Mohr, L. H.	Missouri.
Moore, E. E.	Texas.
Mottaz, W. L.	Illinois.
Moyer, S. R.	Illinois.
Oliver, H. W.	Illinois.
Pottinger,	Missouri.
Roe, C. H.	Illinois.
Schewe, E. T.	Missouri.
Sellinger, H.	Missouri.
Shea, A.	Missouri.
Stuttle, C. E.	Illinois.
Townsend, N. J.	Missouri.
Walker, H. D.	Missouri.
Walker, R. F.	Missouri.
Watkins, J. D.	Missouri.

REQUIREMENTS FOR ADMISSION.

Every candidate for admission must present to the Faculty satisfactory evidence of a good, moral character. He must have a good English education, as evidence of which he must present a certificate of graduation from a high school, college, or university; or an entrance certificate to the second year of a high school. The institution, however, granting these certificates to be accredited as standard by the communities within which they are located; or, in lieu of this certificate, he must take a written examination by an appointee of the State Superintendent of Education in the following studies: —

ENGLISH: { Grammar,
Composition,
Grammatical Construction.

HISTORY: { United States,
General.

GEOGRAPHY: { Descriptive.
Physical.

MATHEMATICS: { Advanced Arithmetic,
Algebra — through Quadratics,
Plane Geometry.

LATIN: { Rules of Grammar, Declensions, Conjugations.
Construction.
Translation of Easy Prose.

ELEMENTARY PHYSICS.

Students who have attended courses of lectures in other accredited schools of Dentistry, will be received into the advanced grades of Middle and Senior classes upon presentation of certificates of having passed examinations in the studies of the Junior and Middle grades respectively.

Such certificates are granted to any student after the satisfactory completion of a given course of study, and are recognized as pledges to any college of the Association of Dental Faculties to whom the holder may apply, that the stated number of terms have been spent in the institution by which the certificates are issued.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM DENTAL COLLEGES IN FOREIGN COUNTRIES.

Persons holding certificates from colleges of dentistry in foreign countries, shall be required to furnish properly attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., the same as required of students coming from our own institutions.

ADMISSION OF GRADUATES OF MEDICINE.

A diploma from a reputable medical college may entitle the holder to enter the School or Middle class, and he may be excused from attendance upon the lectures, and examinations in general anatomy, chemistry, physiology, *materia medica* and therapeutics.

ADMISSION OF UNDERGRADUATES OF MEDICINE.

Undergraduates of reputable medical colleges who have regularly completed one full scholastic year, having attended at least seventy-five per cent of a five months' term and passed a satisfactory examination in the studies of the Freshman year, may be admitted to the Middle class, subject to other rules governing admission to that class.

**ADMISSION OF GRADUATES OF PHARMACY AND
VETERINARY MEDICINE.**

This college admits as Second Year students, graduates of registered schools of pharmacy and veterinary medicine, subject to the examination requirements of the school.

Students are designated as belonging to the First, Second or Third Year Class.

No student of any class will be registered after the tenth day of the session.

Students of all classes are required to register at the beginning of each session at the College Building before Dr. Sidney P. Budgett.

LECTURES.

The Course of lectures included in the curriculum of this College has been so classified and arranged as to give the student the best opportunity for gaining a thorough knowledge of the branches taught.

A portion of the lectures to dental students are given in the St. Louis Medical College, in connection with the medical classes, thus furnishing a rare opportunity for the dental student to acquire the comprehensive knowledge of the fundamental branches of the science of medicine, so indispensable to the successful practice of any specialty.

The Museum, Anatomical Rooms and Chemical Laboratory of the St. Louis Medical College are as free to the dental as to the medical student.

SCHEDULE OF STUDIES.

FIRST OR JUNIOR YEAR.

Subjects Completed the First Year.	Histology. Dental Anatomy. Materia Medica. Comparative Anatomy with Dissec- tion. Pharmacy. Descriptive Anatomy. Practical Anatomy. Mechanical Dentistry. Dental Technology, Lectures and Laboratory Work. Metallurgy.
Subjects Taken First Year and Continued During Second Year.	

SECOND OR MIDDLE YEAR.

Subjects Completed the Second Year.	Descriptive Anatomy. Therapeutics. Chemistry. Metallurgy. Dental Technics. Physiology. Operative Dentistry. Mechanical Dentistry. Institutes of Dental Science.
Subjects taken Second Year and Continued During Third Year.	

THIRD OR SENIOR YEAR.

Subjects Completed the Third Year.	Physiology. Hygiene. Surgery and Clinical Surgery. Operative Dentistry. Institutes of Dental Science. Mechanical Dentistry. Orthodontia.
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INFIRMARY.

This department is justly considered of the greatest practical importance. It is here the student must by the experience gained in actual practice with patients, lay the foundation for operative skill in his profession.

For this work the greater portion of three separate floors 26x84 feet have been set aside.

The first of these having a general office, with clerk and assistants constantly in charge to receive patients; a room for extracting teeth supplied with appliances for the administration of the various anæsthetics used in dentistry. The remaining space of this floor is divided into rooms for Crown and Bridge work, light laboratory work and taking impressions.

The second floor is used exclusively as an operating room, having one side of continuous windows reaching from floor to ceiling, each window being fitted out with a good chair, wall bracket and cabinet to hold the student's entire outfit including dental engines. Here with perfect light and pleasant surroundings, the student has an ideal place for learning the practical part of operative dentistry.

The basement is fitted out with modern apparatus for teaching all departments of Prosthetic Dentistry. This room has granitoid floors, good tables, benches, lathes, heating appliances, electric furnace and lockers for instruments. This infirmary, under the direction of the superintendent and demonstrators, is open daily except Sunday, during the entire year.

DENTAL TECHNICS.

Special courses are given during the first year for manual training in the mechanical operations of dentistry.

These comprise practical instruction by class work. The student takes impressions, makes sets of teeth, crowns, bridges, treats the more ordinary diseases of the teeth, and performs operations upon natural teeth set in convenient forms and studies the anatomy and physical structure of the teeth. Each operation is taken up separately and must be completed in a manner satisfactory to the demonstrator. This method of teaching, though comparatively new, has proven the best yet devised for the rapid attainment of the high degree of manual skill required in the practice of dentistry.

OPERATIVE TECHNICS.

A study of the anatomy of the teeth by observation of enlarged pictures of tooth surfaces. Typical sets of teeth must be selected from miscellaneous collections, and free-hand drawings made of typical tooth forms. Dissections of teeth; the making of silhouette prints of same showing forms of inner walls of pulp chambers and canals, and the relation of dentine and enamel.

A study of all the materials in common use for filling teeth, and practice in the preparation and insertion of them.

Practice in the shaping of cavities and handling of the instrument required.

Practice in preparation and filling of root canals.

A study of instruments, their proper naming, and use.

PRIZES.

Prizes will be awarded for proficiency in the different branches taught in the College.

The Missouri Dental College Faculty Prize.—A fifty-dollar gold medal to the graduate receiving the highest vote on final examination.

The S. S. White Dental Manufacturing Company Prize.—To the graduate excelling in Operative Dentistry.

The John Rowan Dental Mfg. Co. Prize.—To the graduate standing second best in practical Operative Dentistry.

The St. Louis Dental Manufacturing Company Prize.—For the best specimen case of artificial teeth.

The J. E. Kitzmiller Prize.—For the second best specimen case of artificial teeth. (Gold medal.)

REQUISITES FOR THE DEGREE OF DOCTOR OF DENTAL MEDICINE.

The candidate for graduation must be twenty-one years of age, and must possess a good moral character, which includes good deportment while at the College.

He must have attended three regular annual courses (no two courses of which shall have been taken during the same year) of dental instruction, the last of which must have been the Senior Course of this College.

He must treat thoroughly patients requiring all the usual dental operations, and under the eye of the Demonstrator, or Superintendent of the Infirmary, construct

practical artificial cases. He must undergo a satisfactory examination on all the branches taught in the College and conform to the rules and regulations of the Infirmary.

Application for examination for the degree of D.M.D. must be made in writing by the 1st of April, each year, stating the claim of the applicant for such a degree.

This application should be accompanied by at least three letters of recommendation attesting good moral character from prominent citizens of the place of residence of the applicant.

FEES.

Matriculation Fee (paid but once)	8 5 00
Tuition, each Session — due in advance	100 00

No charge for demonstrators' ticket or diploma.

The entire fee is due and must be paid at the beginning of each session.

No student will be permitted to take the final examination unless tuition fees have been paid.

TEXT-BOOKS.

LATEST EDITIONS ONLY.

Anatomy — Gray.

Chemistry — Long's Experimental and Analytical Chemistry.

Physiology — Foster's Text-Book of Physiology.

Pharmacy — U. S. Pharmacopœia.

Materia Medica and Therapeutics — H. C. Wood's.

Principles and Practice of Dentistry — Harris.

Mechanical Dentistry — Essig. Richardson.

Orthodontia — Guilford and Angle, Latest Edition.

Surgery — "An American Text-Book of Surgery." Keen and White.

Operative Dentistry — Kirk. Taft.

Dental Anatomy and Pathology — Burchard. Tomes.

Histology — Piersol.

Metallurgy — Hodgen.

Books of Reference — American System of Dentistry; Harris' Dental Dictionary; Garretson or Tomes Dental Surgery; Kingsley and Coles — Oral Deformities; Newth's Inorganic Chemistry; Simon — Manual of Chemistry; Farrar — Irregularities of the Teeth; Marshall — Oral Surgery.

SUMMARY OF GRADUATES.

OF THE COLLEGE	212
OF THE SCHOOL OF ENGINEERING	194
OF THE LAW SCHOOL	687
OF THE MEDICAL COLLEGE	2,158
OF THE DENTAL COLLEGE	423
HONORARY GRADUATES	13
	<hr/>
	3,687

SUMMARY OF MEMBERS OF THE UNIVERSITY.

COLLEGE AND SCHOOL OF ENGI-	—1898-1899—		—1899-1900—	
	<i>Stu.</i>	<i>Instr.</i>	<i>Stu.</i>	<i>Instr.</i>
NEERING	167	24	182	23
LAW SCHOOL	147	15	149	16
MEDICAL COLLEGE	97	34	203	44
DENTAL COLLEGE	112	16	111	16
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL GRADUATE AND UNDER-				
GRADUATE DEPARTMENTS	528	89	645	99
 PREPARATORY SCHOOLS.				
SMITH ACADEMY	370	21	377	21
MARY INSTITUTE	408	28	411	28
MANUAL TRAINING SCHOOL	234	14	213	15
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	1,012	63	1,001	64
TOTAL GRADUATE, UNDERGRADUATE				
AND PREPARATORY DEPARTMENTS	1,535	152	1,646	163
SCHOOL OF FINE ARTS	311	11	293	13
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL CONNECTED WITH THE UNI-				
VERSITY	1,846	163	1,939	176

OFFICERS OF THE ALUMNI ASSOCIATIONS.

UNDERGRADUATE DEPARTMENT.

President: MR. BEN BLEWITT.

Vice-President: MR. A. L. JOHNSON.

Secretary and Treasury: MR. WILLIAM D. HUDSON.

Executive Committee: MR. S. BENT RUSSELL, MR. F. E. BAUSCH, MR. T. F. CHAPLIN.

LAW DEPARTMENT.

President: MR. SELDEN P. SPENCER.

First Vice-President: MR. EDW. C. ELIOT.

Second Vice-President: MR. JOSEPH W. LEWIS.

Secretary: MR. ARTHUR E. KAMMERER.

Treasurer: MR. HENRY W. OBERSCHELP.

Executive Committee: MR. WILLIAM E. O'BRIEN, MR. CHARLES ERD, MR. GEO. F. HAID.

MEDICAL DEPARTMENT.

President: DR. JOHN ZAHORSKY.

Vice-President: DR. GIVEN CAMPBELL.

Corresponding Secretary: DR. ROBERT J. TERRY.

Recording Secretary: DR. JOSEPH W. CHARLES.

Treasurer: DR. PHIL. HOFFMAN.

DENTAL DEPARTMENT.

President: DR. J. G. HARPER.

Vice-President: DR. O. H. MANHARD.

Secretary: DR. J. B. KIMBROUGH.

Treasurer: DR. C. E. SCHUMACHER.

Executive Committee: DR. C. E. SCHUMACHER, DR. A. H. FULLER, DR. T. L. POEPPELING.

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GENERAL
UNIVERSITY
LIBRARY

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WASHINGTON UNIVERSITY.



1900-1901.

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A CATALOGUE

OF THE

OFFICERS AND STUDENTS

IN

WASHINGTON UNIVERSITY,

WITH THE

COURSES OF STUDY

FOR THE

ACADEMIC YEAR 1900-1901.

ST. LOUIS:

NIXON-JONES PRINTING CO.
1901.

CALENDAR FOR 1901 AND 1902.

1901.

APRIL.		MARCH.		FEB.		JAN.	
		Sun.	Mon.	Tues.	Wed.	Thur.	Fri.
6	7	8	9	10	11	12	13
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1902.

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AUG.		JULY.		MAY.		JUNE.		SEPT.	
						Sun.	Mon.	Sun.	Mon.
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11	12	13	14	15	16	17	18	19	20
18	19	20	21	22	23	24	25	26	27
25	26	27	28	29	30	31			
DEC.		NOV.		OCT.		SEPT.		NOV.	
						Sun.	Mon.	Sun.	Mon.
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21	22	23	24	25	26	27	28	29	30
28	29	30	31						

UNIVERSITY CALENDAR.

1900-1901.

ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 25-26.

ENTRANCE EXAMINATION to the Law School, Wednesday, September 26.

ENTRANCE EXAMINATION to the Medical College, Tuesday and Wednesday, September 25-26.

ENTRANCE EXAMINATION to the Dental College, Tuesday and Wednesday, September 25-26.

SCHOOL OF FINE ARTS opens Monday, September 24.

UNDERGRADUATE DEPARTMENT opens Thursday, September 27.

LAW SCHOOL opens Thursday, September 27.

MEDICAL COLLEGE opens Thursday, September 27.

DENTAL COLLEGE opens Thursday, September 27.

HOLIDAY, Thanksgiving Day, Thursday, November 29.

VACATION, December 24, 1900, to January 2, 1901, inclusive.

FIRST TERM ends Saturday, February 2.

SECOND TERM begins Monday, February 4.

HOLIDAY, Washington's Birthday, Friday, February 22.

HOLIDAY, Good Friday, April 5.

MEDICAL COLLEGE closes Friday, April 19.

DENTAL COLLEGE closes Thursday, April 25.

COMMENCEMENT, Medical and Dental Colleges, Thursday, April 25.

UNIVERSITY HOLIDAY, Friday, May 10.

EXHIBITION OF WORK of School of Fine Arts, June 12-14.

ENTRANCE EXAMINATION to the Undergraduate Department, Monday and Tuesday, June 17-18.

COMMENCEMENT, Law School and Undergraduate Department, Thursday, June 20.

VACATION, June 21 to September 26.

1901-1902.

**ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 24-25.**

**ENTRANCE EXAMINATION to the Law School, Tuesday, Septem-
ber 24.**

**ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 24-25.**

**ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 24-25.**

SCHOOL OF FINE ARTS opens Monday, September 23.

UNDERGRADUATE DEPARTMENT opens Thursday, September 26.

LAW SCHOOL opens Thursday, September 26.

MEDICAL COLLEGE opens Thursday, September 26.

DENTAL COLLEGE opens Thursday, September 26.

HOLIDAY, Thanksgiving Day, Thursday, November 28.

VACATION, December 23, 1901, to January 1, 1902, inclusive.

FIRST TERM ends Saturday, February 1.

SECOND TERM begins Monday, February 3.

CORPORATION.

PRESIDENT:
ROBERT S. BROOKINGS.

VICE-PRESIDENT:
HENRY HITCHCOCK.

SECRETARY:
GEORGE M. BARTLETT.

TREASURER:
WINFIELD S. CHAPLIN.
Office in University Building, 1704 Washington Avenue.

DIRECTORS:

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JAMES E. YEATMAN	3817 Washington boul.
GEORGE E. LEIGHTON	803 Garrison av.
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HENRY W. ELIOT	2635 Locust st.
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DAVID R. FRANCIS	4421 Maryland av.
WILLIAM E. GUY	4380 Westminster pl.

OFFICERS
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GOVERNMENT AND INSTRUCTION.

WINFIELD S. CHAPLIN,A.M.,LL.D.,
Chancellor 3636 West Pine boul.

UNDERGRADUATE DEPARTMENT.

SYLVESTER WATERHOUSE,Ph.D.,
LL.D., Collier Professor of Greek . 1637 Washington av.
CALVIN M. WOODWARD,A.B.,Ph.D.,
Thayer Professor of Mathematics
and Applied Mechanics. 3013 Hawthorne boul.
GEORGE E. JACKSON,A.M., Profes-
sor of Latin 4400 Morgan st.
MARSHALL S. SNOW,A.M., Profes-
sor of History, and Dean of the
College 529 Spring av.
FRANCIS E. NIPHER,A.M., Wayman
Crow Professor of Physics . . . 3021 Dickson st.
EDMUND A. ENGLER,A.M., Ph.D.,
Professor of Mathematics and De-
scriptive Geometry, and Dean of the
School of Engineering 1220 Hamilton av.

Professor of
Mathematics and Astronomy
JOHN FISKE,LL.D., Litt.D., Univer-
sity Professor of American History . Cambridge, Mass.
WILLIAM TRELEASE,S.D., Engel-
mann Professor of Botany . . . Mo. Botanical Garden.

- JAMES MAIN DIXON,M.A., F.R.S.E.,
Professor of the English Language
and Literature 5886 Von Versen av.
- *OTTO HELLER,Ph.D., Professor of
the German Language and Liter-
ature
- JOHN HENRY KINEALY,D.E., Pro-
fessor of Mechanical Engineering . 5080 Morgan st.
- EDWARD H. KEISER,Ph.D., Eliot
Professor of Chemistry 519 Spring av.
- JOHN LANE VAN ORNUM,C.E., Will-
iam Palm Professor of Civil En-
gineering 4269 Delmar boul.
- GUSTAV HAMBACH,M.D., Adjunct-
Professor of Geology 1319 Lami st.
- HOLMES SMITH, Instructor in Draw-
ing 2660 Washington av.
- GASTON DOUAY, Instructor in the
French Language and Literature . 5362 Maple av.
- HERMANN VON SCHRENK,A.M.,
Ph.D., Instructor in Botany . . . 48 Nicholson pl.
- ROBERT F. HOXIE,Ph.B., Instruc-
tor in Economics 3862 Russell av.
- GELLERT ALLEMAN,B.S., Ph.D.,
Instructor in Chemistry 5362 Maple av.
- *ALEXANDER LANGSDORF,B.S.,In-
structor in Physics 3133 Laclede av.
- HERBERT F. ROBERTS,A.B., M.S.,
Instructor in Botany 1748 Waverly pl.
- WILLIAM H. ROEVER,B.S., In-
structor in Astronomy 1000 N. Grand av.
- JAMES A. CHILES,A.M., Instructor
in German 3634 Russell av.
- GEORGE STANLEY MACOMBER,
M.E., Instructor in Physics . . . Washington University.

* Absent on leave.

ST. LOUIS SCHOOL OF FINE ARTS.

- HALSEY C. IVES, Director, Lecturer
on the Historical Development of
Art 3731 Westminster pl.
- ROBERT P. BRINGHURST, In-
structor in Modeling and Sculpture 1820 Locust st.
- EDWARD M. CAMPBELL, Instructor
in Drawing and Painting from Still
Life Studio bldg.
- ALICE M. MORE, Secretary, Lecturer
on the History of Painting, Renais-
sance, and Modern Schools . . . 5881 Plymouth av.
- CHARLES WARD RHODES, In-
structor in Perspective, Shades and
Shadows 3706 Olive st.
- EDMUND H. WUERPEL, Instructor
in Drawing and Painting from Life
and Composition 3500 Henrietta st.
- CHARLES P. DAVIS, Instructor in
the Antique 3500 Henrietta st.
- ALICE M. G. PATTISON, Lecturer on
Engraving, Etching and Allied Arts 4254 Olive st.
- ELISE BLATTNER, Lecturer on the
History of Art 1829a Lafayette av.
- LAURENCE EWALD, Instructor in
Mechanical and Architectural Draw-
ing 946 Maryville av.
- CHARLES A. WINTER, Instructor in
Drawing and Painting from Life, and
Composition Studio bldg.
- HENRIETTA ORD JONES, Instructor
in Ceramic Painting The Berlin.
- FREDERICK L. STODDARD, In-
structor in Design, Applied Art and
Water Color Webster Groves.

SUSAN D'ARCY, Librarian 5884 Bartmer av.
GRACE HAZARD, Instructor in Saturday Classes Kirkwood, Mo.

ST. LOUIS LAW SCHOOL.

WILLIAM S. CURTIS, A.B., LL.B.,
Dean 2140 Lafayette av.
AMOS M. THAYER, LL.D. (U. S. Circuit Judge), Professor of Equity and
Real Property Law 3638 West Pine boul.
CHARLES NAGEL, LL.B., Professor
of the Law of Contracts and Commercial Law 3969 Washington boul.
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LL.B., Lecturer on the Law of
Torts and Negligence 4346 McPherson av.
CHARLES P. JOHNSON, A.M., LL.B.,
Lecturer on Criminal Law 4300 Washington boul.
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Lecturer on Comparative Jurisprudence 3733 Washington boul.
ISAAC H. LIONBERGER, A.M., Lecturer on Corporations, Statutes of
Limitations and Statutes of Fraud 3630 Delmar boul.
LEE SALE, LL.B., Lecturer on Partnership 2734 Lucas av.
PAUL F. COSTE, A.B., LL.B., Lecturer on Bills and Notes 44 Nicholson pl.
C. ORRICK BISHOP, Lecturer on
Criminal Law Jennings, Mo.
EDWARD S. ROBERT, LL.B., Lecturer on Evidence 3224 Washington av.

- JAMES P. MAGINN,LL.B., Lecturer
on Administration 5588 Bartmer av.
EBEN RICHARDS,LL.B., Lecturer on
Damages 4007 Washington boul.
HENRY T. KENT,LL.B., Lecturer on
Jurisdiction of Federal Courts 809 N. Grand av.

MEDICAL DEPARTMENT.

- J. B. JOHNSON,M.D., Professor Emeritus of the Principles and Practice of Medicine 4244 Washington boul.
P.GERVAIS ROBINSON,M.D.,LL.D., Professor Emeritus of the Principles and Practice of Medicine 2710 Washington av.
J. K. BAUDUY,M.D.,LL.D., Professor Emeritus of Psychological Medicine and Diseases of the Nervous System 2808 Olive st.
ELISHA H. GREGORY,M.D., LL.D., Professor of the Principles of Surgery 3525 Lucas av.
G. BAUMGARTEN,M.D., Professor of the Practice of Medicine 5227 Washington av.
H. TUHOLSKE,M.D.. Professor of the Practice of Surgery and Clinical Surgery 2337 Locust st.
T. F. PREWITT,M.D., Professor of the Principles of Surgery 4615 Westminster pl.
W. E. FISCHEL,M.D., Professor of Clinical Medicine 2647 Washington av.
ROBERT LUEDEKING,M.D., Professor of the Diseases of Children 1837 Lafayette av.
JOHN P. BRYSON,M.D., Professor of Genito-Urinary Surgery, Treas. 3833 West Pine boul.
JUSTIN STEER,M.D., Professor of Clinical Medicine 3126 Washington av.

- W. A. HARDAWAY,M.D., LL.D., Professor of Diseases of the Skin and Syphilis 2920 Locust st.
H. N. SPENCER,A.M., M.D., LL.D., Professor of Otology 2725 Washington av.
W. C. GLASGOW,A.B., M.D., Professor of Clinical Medicine and Laryngology 2847 Washington av.
HENRY SCHWARZ,M.D., Professor of Obstetrics 1723 Chouteau av.
PAUL Y. TUPPER,M.D., Professor of Applied Anatomy and Operative Surgery 4236 Delmar boul.
E. W. SAUNDERS,M.D., Professor of Diseases of Children and Clinical Midwifery 1635 S. Grand av.
N. B. CARSON,M.D., Professor of Clinical Surgery 4377 Westminster pl.
J. B. SHAPLEIGH,M.D., Professor of Otology, Secretary 4950 Berlin av.
SIDNEY P. BUDGETT,M.D., Professor of Physiology, Registrar . . . 4105 Washington boul.
W. H. WARREN,Ph.D., Professor of Chemistry 5535 Von Versen av.
R. J. TERRY,M.D., Professor of Anatomy 2726 Washington av.
JOHN GREEN,M.D., Special Professor of Ophthalmology 2670 Washington av.
FRANK R. FRY,M.D., Professor of Diseases of the Nervous System . . . 3133 Pine st.
F. A. GLASGOW,M.D., Professor of Clinical Gynaecology 4056 Washington boul.
H. G. MUDD,M.D., Professor of Fractures and Dislocations, and Clinical Surgery 4144 Washington boul.

- E. M. SENSENEY,M.D., Professor of Diseases of the Throat, Nose, and Chest 2829 Washington av.
- A. J. STEELE,M.D., Professor of Orthopedic Surgery 2825 Washington av.
- JOSEPH GRINDON,M.D., Professor of Clinical Dermatology and Syphilis 509 N. Theresa av.
- A. V. L. BROKAW,M.D., Professor of Clinical Gynaecology 3147 Washington av.
- AMAND RAVOLD,M.D., Professor of Bacteriology and Hygiene 2806 Morgan st.
- CHARLES NAGEL,LL.B., Professor of Medical Jurisprudence 3949 Washington boul.
- ELSWORTH SMITH,Jr.,M.D., Clinical Professor of Medicine 4600 Maryland av.
- D. C. GAMBLE,M.D., Clinical Professor of Diseases of the Ear 5961 Plymouth av.
- H. M. WHELPLEY,Ph.G., M.D., Professor of Materia Medica and Pharmacy 2342 Albion pl.
- CHARLES H. DIXON,M.D., Clinical Lecturer on Surgery 3345 Morgan st.
- HENRY L. WOLFNER,M.D., Clinical Lecturer on Diseases of the Eye 4563 Forest Park boul.
- GREENFIELD SLUDER,M.D., Clinical Lecturer on Diseases of the Nose, Throat and Chest 2647 Washington av.
- EDWIN C. BURNETT,M.D., Clinical Lecturer on Syphilis University Club.
- VILLRAY P. BLAIR,M.D., Lecturer on Descriptive Anatomy 319 N. Grand av.
- A. E. EWING,M.D., Clinical Lecturer on Diseases of the Eye 3333 Washington av.
- LOUIS H. BEHRENS,M.D., Clinical Lecturer on Diseases of the Chest 3607a Olive st.

- ALBERT E. TAUSSIG,M.D., Clinical Lecturer on Medicine 2018 Rutger st.
THEODOR KODIS,M.D., Lecturer on Pathology, and Curator of the Museum 8218 Pine st.
HENRY C. HARTMAN,M.D., Clinical Lecturer on Orthopedic Surgery 1301 St. Ange av.
E. C. RUNGE,M.D., Lecturer on Mental Diseases City Insane Asylum.
GIVEN CAMPBELL, Jr.,M.D., Clinical Lecturer on Diseases of the Nervous System 3429 Morgan st.
GEORGE M. TUTTLE,M.D., Lecturer on Therapeutics 3509 Morgan st.
WILLIS HALL,M.D., Clinical Lecturer on Venereal Diseases of Women 5219 Delmar av.
H. S. CROSSEN,M.D., Clinical Lecturer on Gynaecology 4055 Olive st.
JOHN ZAHORSKY,M.D., Clinical Lecturer on Diseases of Children . 1635 S. Grand av.
H. A. GEITZ,M.D., Instructor in Minor Surgery and Bandaging 2942 Washington av.
PHIL. HOFFMANN,M.D., Clinical Lecturer on Orthopedic Surgery . 705 N. Channing av.

MISSOURI DENTAL COLLEGE.

- ELISHA H. GREGORY,M.D., LL.D., Professor of the Principles and Practice of Surgery 3525 Lucas av.
ALBERT H. FULLER,M D., D.D.S., Dean, and Professor of Operative Dentistry Columbia bldg.

- ORION W. BEDELL,M.D., D.M.D.,
Professor of the Institutes of Den-
tal Science 1909 Lafayette av.
- SIDNEY P. BUDGETT,M.D., Pro-
fessor of Physiology and Histology. 4105 Washington boul.
- CHAS. W. RICHARDSON,D.D.S.,
Professor of Dental Technics . . 1814 Locust st.
- NORMAN B. CARSON,M.D., Profes-
sor of Oral and Clinical Surgery 3600 Olive st.
- GEORGE M. TUTTLE,M.D., Assist-
ant Professor of Materia Medica and
Therapeutics 3509 Morgan st.
- ROBERT J. TERRY,M.D., Profes-
sor of Descriptive Anatomy . . . 2726 Washington av.
- WILLIAM H. WARREN,A.M., Ph.D.,
Professor of Chemistry 5535 Washington av.
- ARTHUR E. MATTESON,D.D.S.,
Professor of Orthodontia Chicago, Ills.
- JOHN H. KENNERLY,M.D., D.D.S.,
Secretary and Professor of Mechan-
ical Dentistry Chemical bldg.
- HERMAN F. CASSELL,D.M.D., Pro-
fessor of Mechanical Dentistry . . 2602 Locust st.
- ALFRED D. FULLER,D.M.D., Assist-
ant Professor of Crown and Bridge
Work Century bldg.
- HERMAN PRINZ,B.S., Ph.G.,D.D.S.,
Professor of Dental Medicine and
Metallurgy 2009 S. Broadway.
- JOHN R. PENDLETON,D.D.S., Dem-
onstrator of Operative Dentistry . 1814 Locust st.
- BENNO E. LISCHEN,D.M.D., Dem-
onstrator of Orthodontia Columbia bldg.
- BLAND NIXON PIPPIN,D.M.D.,
Demonstrator of Mechanical Den-
tistry 1814 Locust st.

GENERAL STATEMENT.

Washington University, founded in the city of St. Louis, under an Act of Incorporation by the State of Missouri, approved February 22, 1853, is intended to embrace the whole range of University studies except theology, and to afford opportunity of complete preparation for every sphere of practical and scientific life.

By the eighth article of the Constitution, "No instruction, either sectarian or religious, or partisan in politics, shall be allowed in any department of the University; and no sectarian or partisan test shall be used in the election of professors, teachers, or other officers of the University for any purpose whatsoever. This article shall be understood as the fundamental condition on which all endowments, of whatsoever kind, are received." The Constitution also declares the article now quoted "not subject to alteration at any time;" but to guard against all encroachments in this important particular, the Directors have obtained from the General Assembly an amendment to the Charter, by which said article is incorporated in the same, and thereby placed beyond the power of any future Board of Directors. The Act of Amendment, approved February 12, 1857, declares: —

"SEC. 2. No instruction, either sectarian in religion, or partisan in politics, shall be allowed in any department of said University; and no sectarian or party test shall be allowed in the election of professors, teachers or

other officers of said University ; or in the admission of scholars thereto, or for any purpose whatever.

“ SEC. 3. It shall be the duty of the Board of Directors of the said University, upon being informed of any violation of the second section of this Act, forthwith to institute an inquiry into the charge or charges that may be preferred, in respect thereof, by any credible person, in writing, against any officer of said University, and if it shall appear that any officer of said University has violated the second section of this Act, the Board of Directors shall forthwith remove any such person so offending from any office which he may then fill in any Department of said University ; and such person so removed shall be forever thereafter ineligible to any office in said University.

“ SEC. 4. In case the Board of Directors, upon being notified in writing, by any credible person, of a violation of the second section of this Act, shall refuse or neglect to investigate the charges thereupon preferred against any officer of said University, it shall be competent for the St. Louis Circuit Court, or the St. Louis Court of Common Pleas, to compel the Board of Directors, by mandamus, to perform their duty in investigating such charge, and to show their performance of such duty to the satisfaction of the Court having cognizance of the matter, and all proceedings under this section shall be summary, and conducted to a conclusion with as little delay as possible ; and the power hereby given to said courts may be exercised by the judge of either of said tribunals in vacation.”

On the 22d of April, 1857, the formal inauguration of Washington University took place with appropriate exercises in University Hall and an oration delivered by Hon. Edward Everett, in the Mercantile Library Hall. An advanced scientific class was organized at that time. An Academy, now known as Smith Academy, had then been in operation about three years. The College and Mary Institute were organized in 1859, and the first class was graduated from the College in June, 1862. The Law School was organized in 1867, the Polytechnic School, now known as the School of Engineering, in 1870, the School of Fine Arts and the Manual Training School in 1879, the School of Botany in 1885. The St. Louis Medical College, founded in 1842, was admitted as a department of the University in 1891, and the Missouri Dental College in 1892. In 1899 the Missouri Medical College, which was founded in 1840, was united with the St. Louis Medical College to form the Medical Department of this University.

To show the principle on which endowments are invited, the fifth, sixth, and seventh articles of the Constitution are here inserted.

“ ARTICLE V.

“ ENDOWMENT OF PROFESSORSHIPS.

“ Any person may endow in whole or in part a specified professorship in the said University ; and if, in the opinion of the Board of Directors, said endowment shall be sufficient for the support of said professorship, said professorship shall bear the name of its founder forever,

unless at the time of the endowment he shall otherwise direct.

“ARTICLE VI.

“ENDOWMENT OF DEPARTMENTS.

“Any person may found, by an adequate endowment, a specified department in said University; provided the plan of its organization and its purposes are approved by the Board of Directors, and if said endowment shall, in the opinion of said Board, be sufficient for the perpetual support of said department, it shall bear the name of the founder thereof forever, unless he shall otherwise direct at the time of endowing the same.

“ARTICLE VII.

“SPECIFIC FUNDS.

“All funds and property of whatever nature and description, contributed to the endowment or foundation of a professorship or department, shall forever be faithfully applied to the specific purpose for which contributed, and to no other object whatsoever, without the written consent of the donor or founder thereof, or his heirs and assigns, and also the written consent of two-thirds of the Directors first had and obtained; provided, however, that said funds and property in this article named shall never be diverted from the purposes of said University.”

WASHINGTON UNIVERSITY

COMPREHENDS:

I. UNDERGRADUATE DEPARTMENT:

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

Washington Avenue and Seventeenth Street.

II. HENRY SHAW SCHOOL OF BOTANY.

1724 Washington Avenue.

III. ST. LOUIS SCHOOL OF FINE ARTS.

Nineteenth and Locust Streets.

IV. ST. LOUIS LAW SCHOOL.

1417 Locust Street.

V. MEDICAL DEPARTMENT.

1806 Locust Street.

VI. MISSOURI DENTAL COLLEGE.

1814 Locust Street.

The following schools have also been organized under the charter of the University:—

I. SMITH ACADEMY.

Washington Avenue and Nineteenth Street.

CHARLES P. CURD,A.M., Ph.D., Principal.

II. MARY INSTITUTE.

Locust and Beaumont Streets.

EDMUND H. SEARS,A.M., Principal.

III. MANUAL TRAINING SCHOOL.

Washington Avenue and Eighteenth Street.

CALVIN M. WOODWARD,Ph.D., Director.

For particulars in regard to these schools see special catalogues, to be had on application to the Principals or Director.

UNDERGRADUATE DEPARTMENT.

THE COLLEGE.

THE SCHOOL OF ENGINEERING.

REMOVAL TO THE NEW SITE.

The Undergraduate Department of the University, which includes the College and the School of Engineering, will in the near future be removed to its new site immediately north and west of Forest Park, which contains one hundred fifty-three acres of land, admirably adapted to university purposes. The cost of the land, about \$350,000, was subscribed by generous citizens of St. Louis.

The new buildings will be as follows: A hall which will include the administration offices of the University and such subjects of instruction as do not require laboratories, to cost \$200,000, the gift of Mr. Robert S. Brookings; two buildings for the engineering departments, civil, mechanical and electrical, together with architecture, to cost \$250,000, the gift of Mr. Samuel Cupples; a building devoted to chemistry to cost \$100,000, the gift of Mr. Adolphus Busch; and a dormitory to cost \$100,000, the gift of Mrs. John E. Liggett. The Board also holds the gifts of the late Mr. Stephen Ridgley, amounting now to about \$100,000, which are to be expended in the construction and maintenance of a library building. Work on these buildings has already begun and they will be completed and equipped as soon as possible. It is reasonably certain that they will be ready for occupancy by September, 1902.

RECENT ADDITIONS TO THE ENDOWMENT FUNDS.

Since the last catalogue of the University was issued, the University has received as a gift from Messrs. Samuel Cupples and Robert S. Brookings, the entire property known as "Cupples Station," which comprises a large number of stores and warehouses occupied by wholesale merchants. It is estimated that the University will receive from these stores a net annual income of about \$120,000; only a small portion of which, however, will be available for educational purposes for some years to come.

UNDERGRADUATE DEPARTMENT.

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

WINFIELD S. CHAPLIN,

Chancellor.

PROFESSORS.

SYLVESTER WATERHOUSE,

Professor of Greek.

CALVIN M. WOODWARD,

Professor of Mathematics and Applied Mechanics.

GEORGE E. JACKSON,

Professor of Latin.

MARSHALL S. SNOW,

Professor of History and Dean of the College.

FRANCIS E. NIPHER,

Professor of Physics.

EDMUND A. ENGLER,

Professor of Mathematics and Descriptive Geometry and Dean of the School of Engineering.

Professor of Mathematics and Astronomy.

WILLIAM TRELEASE,

Professor of Botany.

JAMES MAIN DIXON,

Professor of English.

OTTO HELLER,

Professor of German.

JOHN H. KINEALY,
Professor of Mechanical Engineering.

EDWARD H. KEISER,
Professor of Chemistry.

JOHN LANE VAN ORNUM,
Professor of Civil Engineering.

GUSTAV HAMBACH,
Adjunct Professor of Geology.

INSTRUCTORS.

HOLMES SMITH,
Instructor in Drawing.

GASTON DOUAY,
Instructor in French.

HERMANN VON SCHRENK,
Instructor in Botany.

ROBERT F. HOXIE,
Instructor in Economics.

GELLERT ALLEMAN,
Instructor in Chemistry.

ALEXANDER S. LANGSDORF,
Instructor in Physics.

HERBERT F. ROBERTS,
Instructor in Botany.

WILLIAM H. ROEVER,
Instructor in Astronomy.

JAMES A. CHILES,
Instructor in German.

GEORGE STANLEY MACOMBER,
Instructor in Physics.

STUDENTS.

SENIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Alt, Arnold Dettmar . . .	Arts . . .	3819 West Pine boul.
Bartlett, Roy	Mech. Eng.	3021 Eads av.
Beckert, John Henry . . .	Arts . . .	6604 Michigan av.
Bennett, Maude Warne . .	Arts . . .	4034 Page boul.
Black, Gurdon Gilmore . .	Civ. Eng. . .	Clayton, Mo.
Bowen, Sherman Worcester .	Civ. Eng. . .	5941 Cote Brillaute av.
Brown, Mabel Wolcott . .	Arts . . .	1333 N. King's h'way.
Bryan, Grace	Arts . . .	3746 Windsor pl.
Chamberlin, Caroline . . .	Arts . . .	3119 Lucas av.
Crecelius, Florence Lesette .	Arts . . .	1110 Dillon st.
Cummings, Ruth Rozelle . .	Arts . . .	3514 Olive st.
Eilers, Ralph	Arts . . .	4935 Easton av.
Erskine, Lucille	Arts . . .	4975 Wabada av.
Flickner, Martha Ver Bryck .	Arts . . .	4466 Page boul.
Fuhlilage, Louise Hermine .	Arts . . .	1709 Chouteau av.
Greensfelder, Albert Preston.	Civ. Eng. . .	Central, Mo.
Griffin, Everett Paul . . .	Arts . . .	2842 Lawton av.
Harting, Otto Frederick . .	Civ. Eng. . .	1101 Montgomery st.
Haydock, Daniel Winters .	Arts . . .	Normandy, Mo.
Hudson, Marjorie Hannah .	Arts . . .	1820 O'Fallon st.
Judd, Nellie	Arts . . .	4328 Morgan st.
Lyon, Dora Laurina . . .	Arts . . .	4415 Kennerly av.
Miller, Jeanette Charlotte .	Arts . . .	3628 Cass av.
Mueller, Laura Carolyn . .	Arts . . .	5058 Kensington av.
Olmstead, Mabel	Arts . . .	4848 Garfield av.
Senseney, Eugene Towner . .	Arts . . .	2829 Washington av.
Shahan, William Ewing . .	Arts . . .	3333 Washington av.
Terry, Robert James, M.D. .	Arts . . .	2726 Washington av.
Thornton, Frances Roberta .	Arts . . .	3688 Laclede av.
Wiederholdt, Ernest Ferdinand	Mech. Eng. . .	1211 Morrison av.

Total, 30.

JUNIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Battle, Anita Traviss	Arts . . .	2714 Stoddard st.
Champlin, Edith	Arts . . .	3414 Washington av.
Cutts, Francis Thacher	Civ. Eng. . .	3887 Washington boul.
Dawes, Henry Arthur	Arts . . .	3626 Garfield av.
Flanigan, Blanche	Arts . . .	5019 Raymond av.
Forder, Samuel Walker	Chem. . .	St. Louis County.
Freeman, Mary Louise	Arts . . .	5347 Bartmer av.
Gladfelter, Edith Edna	Arts . . .	4720 N. 20th st.
Jacobs, Max William	Arts . . .	2307 S. 9th st.
Keileter, Paul Delmar	Arts . . .	3114 Illinois av.
Muench, Alice Frances	Arts . . .	3117 Longfellow boul.
Murphy, Robert Lincoln	Civ. Eng. . .	2115 Oregon av.
Pollard, Harry Moses	Arts . . .	3015 Washington av.
Schade, Florence Garrell	Arts . . .	2221 Benton st.
Scheel, Frederick Engelmann	Arts . . .	Belleville, Ill.
Stephens, Joseph Lafayette	Arts . . .	1611 Missouri av.
Tittmann, Alice Fabian	Arts . . .	2732 Russell av.
Williams, Joseph Adler	Arts . . .	4292 Page boul.

Total, 18.

SOPHOMORE CLASS.

Anderson, Alban Jennings	3858 Windsor pl.
Armstrong, Frederick, Jr.	4236a Garfield av.
Black, Albert Eugene	2800 Caroline st.
Bratney, John Frederick	1755 Preston pl.
Brey, William Wilson	3429 Bell av.
Codding, Frank Souther	4526 Page boul.
Coste, Miriam	48 Nicholson pl.
Curtis, Edward Glion	2140 Lafayette av.
Denton, Francis Douglas	5404 Maple av.
Glasgow, Clemens Englesing	2847 Washington av.
Hellmuth, Edgar Philip	3107 Brantner pl.
Hunt, Jennie Ida	74 Vandeventer pl.
Huse, Mary	4047 West Belle pl.
Kammerer, Edward Charles	2724 Dayton st.
Kenney, Willis Pritchard	3628 Finney av.

NAMES.	RESIDENCE.
Levy, Maurice Frank	4452 Washington boul.
Martin, James Samuel	5620 Minnesota av.
Mitchell, Clara Fanita	Kirkwood, Mo.
Sale, Llewellyn	5115 Westminster pl.
Samuel, Newman	3407 Washington av.
Schantl, Hans	914 S. 4th st.
Sessinghaus, Eugene Frederick	2901 Rauschenbach av.
Snow, Roger Don	4171 Shenandoah av.
Steidemann, Oscar Franklin	4110 N. 11th st.
Weidmann, William Christopher	Belleville, Ills.
White, Philip Benajah	Kirkwood, Mo.
Wilderman, Eunice Emma	Belleville, Ills.

Total. 27.

FRESHMAN CLASS.

Anderson, Biron Corwin	4625 Morgan st.
Bischoff, Julius Montgomery	2714 Russell av.
Brown, George Herbert Mather	Kirkwood, Mo.
Clayton, Burkett Sale	Kirkwood, Mo.
Cram, Leroy Vernon	5813 Von Versen av.
Dennis, Arthur Edward	Belleville, Ills.
DeWolf, Herbert	5459 Bartmer av.
Drabelle, Herschel John	4524 McPherson av.
Evers, Edward Paul	1861 N. Market st.
Farrar, Christy Morgan	6024 Emma av.
Gayler, Linnie	2917 Henrietta st.
Grine, Henry Adam	3627 Weber road.
Harnett, Lylian Vernon	Wellston, Mo.
Harris, William John, Jr.	3514 Lucas av.
Hathaway, Frank Bacon	Denison, Texas.
Hoffmann, Philip George	2309 University st.
Hornshby, Francis Evremont	6615 Michigan av.
Jones, Sargeant	4122 Juniata st.
Kayser, Olga	2322 S. Compton av.
Kissack, Alfred Broughton	5709 Vernon av.
Leschen, Arthur Adolph	8616 Palm st.

NAMES.	RESIDENCE.
Lockwood, Richard John	2731 Lawton av.
Long, Lyda	1122 Leonard av.
Niesen, Adela Julia	St. Louis Co.
Nipher, Edith Cope	3021 Dickson st.
Pritchard, John Charles	4245 Evans av.
Rice, Charles Marcus	3733 West Pine boul.
Rosenberg, Gabriel Llewellyn	909 Morrison av.
Schaum, Arthur Henry	1429 Penrose st.
Schnurmacher, Stella	3666 Flora av.
Stevens, Benjamin Chandler	2807 Russell av.
Thomas, Woodlief	Franklin, Tenn.
Tittmann, George Fabian	2732 Russell av.
Toensfeldt, Kurt	2203 Park av.
Valier, Charles Eugene	4362 Washington boul.
Washington, Francis Joseph	1321 N. 14th st.
Woods, Helen Elizabeth	6211 Virginia av.

Total, 37.

CANDIDATES FOR DEGREES NOT CLASSIFIED.

Bovie, Elizabeth	3940 West Belle pl.
Clute, Marion Morrill	4808 Hammett pl.
Greensfelder, Ella Belle	Central, Mo.
Jenkins, Elizabeth Backus	Kirkwood, Mo.
Lawton, Rachel	25 N. Spring av.
Lyon, Aimee Henrietta	4157 West Belle pl.
Miller, Arthur Carl Webster	3628 Cass av.
Richey, Guida Hoen	5555 Cabanne pl.
Trueblood, Alva Cooper	939 Ailanthus st.

Total, 9.

SPECIAL STUDENTS.

Ahrens, Leo	1026 S. 9th st.
Bouton, May Innes	2909 Park av.
Brownson, Winnie Ella	Belleville, Ill.
Chaplin, Susan Elizabeth, A.B., 1897	3636 West Pine boul.

NAMES.	RESIDENCE.
Gladfelter, Lisbeth M.	4720 N. 20th st.
Golsan, Lella Belle	4008 Delmar boul.
Greensfelder, Hattie	Central, Mo.
Hart, William Augustus	19 Portland pl.
Hempelmann, Walter Leo	1438 N. 9th st.
Holman, Charles Henry	3744 Finney av.
Klem, Mary Jeanette	1940 Arsenal st.
Koken, William Theodore, Jr.	3522 Hawthorne boul.
Lang, George, Jr.	5266 Washington av.
Langenberg, Carl Haynes	5240 Washington av.
Lee, Wayne	4400 Westminster pl.
Miller, Nelda	3628 Cass av.
Orr, Joan Campbell	5608 Cabanne av.
Phillips, Bertha	5617 Clemens av.
Piednoir, Hector A., Jr.	4247 Laclede av.
Plant, John William, Jr.	3431 Caroline st.
Ravold, Edward James	2806 Morgan st.
Seaver, Helen	5705 Vernon av.
Shoenberg, Sidney Melville	3943 West Pine boul.
Spiegelhalter, Ella	2166 Lafayette av.
Tuholske, Rose	2837 Locust st.
Van Vleck, James Brackett, B.S., 1900, N. Y. Univ.	4905 Lotus av.
Wallace, Isabel	2930 Laclede av.
Warren, William Homer	5535 Von Versen av.
Warren, Lucy S.	5535 Von Versen av.
Wells, Harry Prescott	1833 Cass av.
Witt, John William	Warrenton, Mo.
Total, 31.	

CANDIDATES FOR ADVANCED DEGREES.

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Webber, Herbert J.,

B.S., Univ. of Neb., 1889.

A.M., Univ. of Neb., 1890. Botany . Washington, D. C.

FOR THE DEGREE OF MASTER OF ARTS.

Adams, Grace,						
	A.B., Wash. Univ., 1898	.	History	.	.	St. Louis.
Gilbert, Helen,						
	A.B., Wash. Univ., 1897	.	History	.	.	St. Louis.
Hospes, Cecilia Lizzette,						
	A.B., Wash. Univ., 1896	.	German	.	.	St. Louis.
Trail, Mary Wilson,						
	A.B., Wash. Univ., 1900	.	History	.	.	St. Louis.
White, Elizabeth M.,						
	A.B., Vassar Coll., 1882	.	Botany	.	.	St. Louis.
Wittler, William Stephen,						
	A.B., Wash. Univ., 1898	.	History	.	.	St. Louis.

FOR THE DEGREE OF MASTER OF SCIENCE.

Langsdorf, Alexander Suss,						
	B.S., Wash. Univ., 1898	.	Elec. and Mag.	.	St. Louis.	
Selby, Augustine Dawson,						
	B.S., Ohio State Univ., 1893	.	Botany	.	St. Louis.	
					Total, 9.	

SUMMARY.

Seniors	.	.	.	.	.	.	30
Juniors	.	.	.	.	.	.	18
Sophomores	.	.	.	.	.	.	27
Freshmen	.	.	.	.	.	.	37
							112
Candidates for degrees not classified	.	.	.	.	.	.	9
Special Students	.	.	.	.	.	.	31
Candidates for Advanced Degrees	.	.	.	.	.	.	9
Total	.	.	.	.	.	.	161

COURSES OF INSTRUCTION PROVIDED IN THE UNDERGRADUATE DEPARTMENT.

GREEK.

Professor Waterhouse. Three times a week.

1. Herodotus (selections).
2. Homer (selections). Isocrates: The Panegyric.
3. Demosthenes on the Crown; Thucydides (selections).
4. Selections from the Tragedians.
5. Selections from the Tragedians.
6. Plato (selections).

LATIN.

Professor Jackson. Three times a week.

1. Livy: Second Punic War. Books XXI-XXX.
2. Horace: Odes and Epodes; Satires and Epistles (selections).
3. Cicero: Philosophical Works (selections): Letters.
4. Plautus, Terence, Juvenal (selections).
5. Tacitus: Annals and Histories (selections).
6. Suetonius; Seneca: Moral Essays; Quintilian.
7. Seneca: Tragedies; Martial: Epigrams; Lucretius.
8. Pliny: Letters; Catullus, Tibullus, Propertius (selections).

ENGLISH.

Professor Dixon.

1. The elementary laws of all writing. Canons of correct usage in language. The function of grammars and dictionaries. Analysis of sentences. English idioms — auxiliary verbs, conditional sentences, relative pronouns, etc. Literary forms — the paragraph, article, essay. The rules of letter-writing. Exercises in composition and analysis.
Three times a week.

2. Modern English prose, especially in the departments of narrative and exposition. Framing of synopses and abstracts. Exercises in journalistic paragraphs. *Three times a week.*
3. English prose from Sidney and Dryden to Arnold, Newman and Lowell. Lectures on the development of English prose. *Three times a week.*
4. Modern poetry: Keats, Tennyson, Browning. Sonnet literature. *Twice a week.*
The laws of versification, with exercises. *Once a week.*
5. Oratory as a branch of literature. The composition of an oration. Study of Bacon's essays. *Twice a week.*
Rise and growth of the English novel. Exercises in story-writing. History of journalism and the essay. *Once a week.*
6. Shakespeare; his life and literary career; the quartos and folios. English and German editors and commentators; textual criticism. Critical reading of one play (1900, *The Winter's Tale*). Exercises in analyzing the structure of the play, and the development and interaction of the characters. *Three times a week.*
7. Spenser, Milton (1900, *Comus*), Pope, Wordsworth. *Twice a week.*
Old English grammar and composition. Lectures on philology. *Once a week.*
8. Dialect literature. Ballad literature. Chaucer and Burns. *Twice a week.*
Seventeenth century prose. *Once a week.*

GERMAN.

Professor Heller. Three times a week.

- 1-2. Elementary Courses. Accidence; Translation from German into English and from English into German; German Conversation. Reading: *Zschokke*, der zerbrochene Krug; *Fischer*, die wandelnde Glocke; *Leander*, Träumereien; *Storm*, Immense.

Prescribed for Freshmen who did not present German for admission.

- 3-4. German Syntax and Prose Composition: *Joynes-Meissner*; r. *Jagemann*. German conversation, based upon the books read. Reading: *Stifter*, das Heidedorf; *Freytag*, der Kronprinz; *C. F. Meyer*, Gustav Adolfs Page; *Schiller*, Wilhelm Tell, and one or two short comedies.
- 5-6. Composition continued. Outline of the History of German Literature from its beginnings to the death of Goethe. Reading: *Lessing*, Minna von Barnhelm; *Goethe*, Hermann und Dorothea, Iphigenie auf Tauris; *Schiller*, Ballads; das Lied von der Glocke; *Wallenstein*.
- 7-8. Outline of the History of German Literature from 1832-1900. Reading: Selected works of *Heine*, *Uhland*, *Geibel*, *Auerbach*, *Hebbel*, *Keller*, *Heyse*, *Wildenbruch*, *Baumbach*, *Seidel*, *Sudermann*, *Hauptmann*, and other writers. Written and oral reports on outside reading.
- 9-10. History of German Literature from the oldest times to the present day. A lecture course.
- 11-12. The metrical works of Goethe. An introduction to the systematic study of a great writer. One and a half terms are devoted to *Fdust*, I. and II.; the remaining half-term is given to a more cursory study of Goethe's other masterpieces in verse.
- 13-14. History of the German Language. An introduction to the study of Germanic Philology. Middle-High-German Grammar. Reading: *Nibelungenlied*; *Hartmann von Aue*, der arme Heinrich; *Walther von der Vogelweide*.

Students are advised to take History 5 before electing German 5, or 9-10.

In place of the works quoted as reading texts for the above courses, others of like degree of difficulty are frequently substituted.

The basal idea underlying the programme is the ultimate establishment of two parallel courses of four years each: one the usual full German course offered to undergraduates of Anglo-American parentage, and the other a four years' undergraduate course for German-American students and such others as enter college with the knowledge of German necessary for the work.

Courses 5-14 are conducted in German.

Courses 9-14 are offered primarily to students of German parentage. Although, for the present, only two of the six can be given each year, it is not impossible for any German-speaking undergraduate to continue advanced German through his entire college course.

FRENCH.

Mr. Douay. Three times a week.

1. Elementary course: Pronunciation, elementary grammar, easy colloquial French.
2. Elements of syntax. Reading and translation of French prose. A modern French comedy will be read as part of Course 2.
Courses 1 and 2 are prescribed for Freshmen who did not present French for admission.
Reading, conversation, dictation. French syntax. Translation of English into French.
4. Reading. Conversation. Study of Idioms. Elements of French composition. Outside reading.
- 5-6. Brief account of the development of French literature to the XVII. century. French literature of the XVII. century with illustrative readings. French essays on literary subjects.
- 7-8. French literature of the XVIII. and XIX. centuries, with illustrative readings. French essays.

Courses 5-6, 7-8, are conducted in French. Recitations and lectures.

LOGIC.

Professor Dixon. Three times a week.

Province of Logic. Terms. Extension and intension; Logic and language. Propositions and their conversion; the predicate; division and definition. The Syllogism; regular, irregular, and compound conditional arguments. Fallacies and the best methods of treating them. Argument in orations and general literature.

ECONOMICS.

Mr. Hoxie. Three times a week.

I. Elementary Courses.

1. Descriptive Economics. A course in the development and structure of industry.
2. Principles of Economics. An introduction to Economic Theory.
3. Practical Economics. A brief descriptive and theoretical discussion, with special reference to the influence of machinery and transportation.

II. Intermediate Courses.

- 4-5. Economic Theory and Practice. A further study of Economic principles and a brief consideration of important practical problems.

III. Advanced Courses.

6. Methods of Investigation. A course intended to give training in the assembly of materials, weighing of evidence, use of statistics, organization of material and writing.
7. Advanced Economics. Investigation of selected topics in Economic history, theory and practice.

Courses 1 and 2 are open to all college students except Freshmen; course 3 is given only to students of the School of Engineering; course 4 is open to all students who have taken courses 1 and 2; courses 5 and 6 are intended only for students who have taken courses 1, 2 and 4, or their equivalents, and who are approved by the instructor.

HISTORY.

Professor Snow. Three times a week.

1. England from Henry VII. to the end of the Stuart Period.
2. England; Modern Period.
3. France under the Bourbon Kings to the Revolution.
4. France; The Revolution and the Empire.

5. Mediaeval Germany; The Holy Roman Empire to the Peace of Westphalia.
6. Eastern Europe since the Fall of the Western Empire.
7. Constitutional History; Constitution of the United States; Comparison of American and European Governments.
8. Elements of International Law, with Study of Treaties. *Half Course.*
9. General European History; Review and Discussion. *Half Course.*

HISTORY OF ART.

Mr. Holmes Smith. Three times a week.

1. Ancient Art: Development of Architecture, Sculpture and Decoration in Ancient Egypt, Chaldaea, Assyria, Persia, Greece.
2. Roman and Mediaeval Art: Early Christian, Romanesque, and Gothic Art: Architecture, Sculpture, and Decoration.

MATHEMATICS.

Three times a week.

1. Higher Algebra. *Professor Engler.*
2. Plane and Spherical Trigonometry. *Professor Engler.*
3. Analytic Geometry. *Professor Engler.*
4. Differential Calculus. *Professor Engler.*
5. Integral Calculus. *Professor Woodward.*
6. Higher Plane Curves. *Professor Engler.*
7. Theory of Functions. *Professor Engler.*

APPLIED MECHANICS.

Professor Woodward. Three times a week.

1. Graphical Statics, Stress Diagrams for Frames, Trusses, and Bridges analyzed and drawn to scale.
2. General Principles of Statics and Dynamics with illustrative examples.

3. Rotation of Rigid Bodies. Character and distribution of Stress. Strength and Stiffness of Girders and Shafts.
4. Kinematics, Mechanism, including the general theory of transmission of energy by Gearing, Liquids, Belts, etc., with and without friction.
5. Deflection of Beams and Girders and the Torsion of Shafts.

PHYSICS.

1. Elementary Mechanics, including the Mechanics of Fluids.
Two lectures or recitations and two hours of laboratory work a week. Professor Nipher and *Mr. Langsdorf.
2. Heat. *Two lectures or recitations and two hours of laboratory work a week.* Professor Nipher and Mr. Langsdorf.
3. Optics. *Two lectures or recitations and two hours of laboratory work a week.* Professor Nipher and Mr. Langsdorf.
4. Electricity and Magnetism. *Two lectures or recitations and two hours of laboratory work a week.* Professor Nipher and Mr. Langsdorf.
5. Laboratory instruction in Electrical Measurements, including measurement of resistances, E. M. F. of batteries, the calibration of amperemeters and voltmeters, electrolytic measurements, magnetic determinations, heating effect of currents, electrical determinations of Joule's equivalent. *Six hours a week.* Professor Nipher.
6. Introduction to the mathematical theory of Electricity and Magnetism, including the theory of Potential; capacity of bodies; energy of electrical systems; electrometers and electrostatic voltmeters, theory of magnetic measurements, magnetic fields due to electric currents, electrical induction, theory of dynamos and electric motors, alternating currents, tri-phased systems. *Three hours a week.* Professor Nipher.

* During the current year Mr. Macomber will take the place of Mr. Langsdorf.

7. Dynamo-electric Machinery, including a discussion of the theory of series, shunt and compound dynamos and motors, conditions of efficiency of dynamos and motors, conditions of economic operations, transformers and transformer systems, electric lighting stations, electric railways, power stations, and secondary batteries. *Three lectures a week.* *Professor Nipher.*
8. Laboratory work in testing electrical machinery. *Three hours a week.* *Mr. Langsdorf.*
9. Designing of electrical machinery. *Six hours a week.* *Mr. Langsdorf.*
10. Electrical Transmission of Power and Light, and the study of the designing of machinery for specific output and economy. *Three hours a week of lectures and two hours of laboratory work.* *Mr. Langsdorf.*
- 11-12. Designing of Electrical Machinery. *Six hours a week.* *Mr. Langsdorf.*
- 13-14. Laboratory Work. *Six hours a week.* *Mr. Langsdorf.*

CHEMISTRY.

- 1-2. General Descriptive Chemistry. Lectures and laboratory work upon the preparation and properties of the more important elements and compounds. General laws and principles of chemistry. *Two lectures and two hours of laboratory work a week.* *Professor Keiser and Dr. Alleman.*
3. Qualitative Analysis. Systematic methods of separating and detecting the bases and acids. Laboratory work. *Six hours a week.* *Dr. Alleman.*
4. Quantitative Analysis. Methods of gravimetric and volumetric analysis. Laboratory work. *Six hours a week.* *Dr. Alleman.*
- 5-6. Organic Chemistry. Lectures upon the chemistry of the carbon compounds. Preparation, properties and transformations of typical compounds. Methods of determining chemical constitution; relationships between classes

- of compounds. General laws and theories. *Three hours a week.* *Professor Keiser.*
- 7-8. Laboratory Work in Organic Chemistry. Preparation and study of the transformations of typical compounds. *Six or twelve hours a week.* *Professor Keiser.*
- 9-10. Advanced Quantitative Analysis. Laboratory Work. Analysis of commercial and industrial materials and products. Sanitary examinations of foods, water, etc. Gas analysis. *Six or twelve hours a week.* *Professor Keiser.*
11. Laboratory work in Physical Methods. Determination of molecular weights by the freezing point and boiling point methods. *Three hours a week.* *Dr. Alleman.*
12. Chemical Seminary. Advanced workers and Instructors meet to report upon and discuss articles in current chemical journals. *Three hours a week.* *Professor Keiser and Dr. Alleman.*
13. Mineralogy. Crystallography and the determination of minerals by means of the blowpipe. *Three hours a week.* *Dr. Alleman.*
14. Descriptive mineralogy. Lectures and laboratory work. *Three hours a week.* *Dr. Alleman.*
15. Assaying. Fire assays of gold, silver and lead ores and smelting products. Laboratory work. *Six hours a week.* *Dr. Alleman.*
- 16-17. Research work in Theoretical or Applied Chemistry. Investigation of some subject in pure or applied chemistry. Laboratory work and reading of original papers and memoirs. Preparation of a thesis. *Professor Keiser.*

BOTANY.

Professor Trelease and two Assistants. Three times a week.

1. Elementary Morphology and Organography, with reference to Ecology and Systematic Botany. Lectures and demonstrations.

2. Elementary Anatomy and Phanerogamic Botany. Laboratory work.
3. Synoptical Study of the Cryptogams. Laboratory work.
4. A special study of some group of Cryptogams.
5. Methods of Vegetable Histology. Laboratory work.
6. Histology and Morphology of the Higher Plants. Laboratory work.
7. A laboratory study of the minute anatomy of the lower Cryptogams.
8. Technical Microscopy of Timbers. Laboratory work. *Two hours a week.*
9. Economic Botany. Lectures and laboratory demonstrations.
- 10-11. Applied Mycology. Laboratory work.
- 12-13. Garden Botany. Laboratory study of cultivated plants, at the Botanical Garden.
- 14-15. Vegetable Physiology. Laboratory work.
- 16-17. Bacteriological Technique. Laboratory work.
18. Physiographic Ecology. Lectures and Field work.

It is intended that course 1 shall always be followed by course 2, the two being preparatory to other electives. For the present, unless special reason to the contrary exists, courses 1 and 2 only will be given each year, the remaining electives being offered the alternate years, as follows: —

For 1900-1901.

First term, courses 1, 14 and 16.

Second term, courses 2, 15 and 17.

For 1901-1902.

First term, courses 1, 5, 8, 10 and 16.

Second term, courses 2, 6, 7 and 11.

Students who have taken courses 1 and 2, or have had their equivalent elsewhere, are admitted to any of the other elementary electives which can be taken without conflict with other university work; but students who desire to equip themselves as botanists are advised to take the electives as nearly as possible in the order in which they are offered, and on the completion of

the elective courses should expect to devote not less than ten hours a week through an entire year to some piece of research work, selected under the advice of the Professor of Botany.

Special graduate study or investigation is planned to meet the needs of students, so far as the facilities of the School of Botany and the Botanical Garden permit.

ASTRONOMY.

Mr. Roever.

1. Descriptive Astronomy. Lectures and recitations, with occasional work at the Observatory. *Three times a week.*
2. Practical Astronomy. Applications of Astronomy in determination of time, Latitude, Longitude and Azimuth. *Three times a week.*

Spherical Trigonometry will be required for entrance to either of these courses.

ZOOLOGY.

Adjunct-Professor Hambach. Three times a week.

- 1-2. Lectures and laboratory demonstrations.

GEOLOGY.

Adjunct-Professor Hambach. Three times a week.

1. General Course.
- 2-3. Elementary and Systematic Geology.
- 4-5. Palaeontology.
6. Petrography.

DRAWING.

Mr. Smith.

1. Freehand Drawing in outline of groups of objects, both from the objects themselves and from memory. The accurate

observation of form and its correct expression. The study of proportions and the laws of perspective involved in freehand drawing from objects.

Freehand Drawing and Shading from objects with pencil and pen and ink. The study of light and shade as a means of expressing form on a flat surface. *Six hours a week.*

2. Practical Freehand Lettering for use on plates and working drawings.

Geometrical Drawing. Those problems in construction that are needed in the study of descriptive geometry, machine design, etc. *Six hours a week.*

3. Machine Drawing. The making of working drawings from actual measurement of machines and parts of machines. The making of tracings and blue prints.

Isometric Drawing from actual measurement or from sketches. In this work the drawings are line shaded.

The essentials of Linear Perspective, with problems. *Six hours a week.*

DESCRIPTIVE GEOMETRY.

Professor Engler. Three times a week.

1. General problems of points, lines and planes: single-curved, double-curved and warped surfaces.
2. Tangency, intersections, shades and shadows, linear perspective.

*SHOP-WORK.

1. Carpentry. *Three hours a week.* *Mr. Swafford.*
2. Pattern-Making and Moulding. *Three hours a week.* *Mr. True.*
3. Forging. *Six hours a week.* *Mr. Jones.*
4. Machine Shop Work. *Six hours a week.* *Mr. Bast.*

* The instruction in this subject is given in the shops and by the instructors of the Manual Training School.

CIVIL ENGINEERING.

Professor Van Ornum.

1. Elements of Surveying. The use and adjustment of all the ordinary surveying instruments; simple land surveying and leveling. *Two recitations a week with field practice Saturday forenoon.*
2. Topographical Mining and Hydrographic Surveying. Topographical surveying by the transit and stadia method and also by the plane table; problems in linear surveys, in laying out simple and compound curves and turnouts, the passing of obstructions, adjustment of curves, etc., in railroad surveying. *Two recitations a week with field practice Saturday forenoon.*
- 3-4. Surveying in the Field. *Three weeks devoted continuously to field practice.* This practice includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a system of triangulation and levels which forms a part of the work of the survey. A hydrographic survey, with locations by one of the most approved methods, is made, and a railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time and azimuth, and various other special problems are worked out practically. For this work the class goes to a suitable point at a distance from the city the Monday before the beginning of the year. A map of this survey is drawn after return from the field.
5. Higher Surveying. City, railroad and geodetic surveying, with the principles of the construction of maps and the principles governing the economic locations of railways. *Three recitations a week.*
6. Drawing. To accompany Courses 3 and 5. *Six hours a week.*

7. **Stereotomy.** Application of Descriptive Geometry to stone cutting, including groined, cloistered and skew arches.
Three hours a week. *Professor Engler.*
8. **The analysis of Stresses in Framed Structures.** Analytical and graphical determinations of stresses in various styles of roof trusses, and of highway and railway bridges for distributed and concentrated, fixed and moving loads.
Three hours a week.
9. **Structural Drawing.** To accompany Course 8. *Six hours a week.*
10. **The Designing of Framed Structures.** The analysis of suspension, draw and arch bridges, and an analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs. *Three hours a week.*
11. **Structural Design.** To accompany Course 10, and involving complete details. *Six hours a week.*
12. **Engineering Materials.** A review of the principles of mechanics relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of methods of testing the strength of materials and a discussion of the essential properties of the more common materials of engineering construction.
Three hours a week.
13. **Testing Laboratory Practice.** Experimental tests made by the student on the strength of various kinds of engineering materials. *Six hours a week.*
14. **Testing Laboratory Practice.** Experimental tests made by the student on the strength of various kinds of engineering materials. For students in mechanical and electrical engineering. *Three hours a week.*
15. **Masonry Structures, Tunneling and Explosives.** Building foundations, retaining walls, dams, arches, chimneys, bridge piers, etc., together with the study of the materials involved. Methods of tunneling through different materials. The nature and use of explosives. *Three hours a week.*

16. Sanitary Engineering and Irrigation: The collection, storage, pumping, settling, filtering, and distribution of potable waters, as modified by various conditions of supply and service. The practical designing of systems of sewerage and drainage. Methods of sewage-disposal. Modern irrigation methods, including the elements of a complete irrigation plan. *Three hours a week.*
17. Engineering Design. Supplementary to courses 10, 12, 15 and 16. *Six hours a week.*
18. Specifications and Projects.
 - (a.) The law of contracts as applied to engineering work, together with typical forms of specifications. *One hour a week.*
 - (b.) Consideration in detail of a designated engineering project by the student, with his completed plan adequately described and its scientific and economic advantages presented. *Two hours a week.*
19. Graduation Thesis. An extended study or design, involving original investigation or experiment.

MECHANICAL ENGINEERING.

Professor Kinealy.

1. Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work and trains of mechanism. *Three hours a week.*
2. Machine Designing. Study of the principles. *Three hours a week.*
3. Machine Designing and Mill Engineering. Shafting, gearing, belts and ropes, mill and factory construction. *Three hours a week.*
4. Elementary Steam Engineering. Elements of thermodynamics and the theory of the steam engine; types of engines; valves and valve diagrams; indicator cards; boilers and chimneys. *Three hours a week.*

5. Machinery Drawing. Work in the drawing-room to accompany Course 1. *Six hours a week.*
6. Machinery Drawing. Details of the steam engine; link motions and valve diagrams. *Six hours a week.*
7. Mechanical Laboratory. Standardization of instruments; oil testing. *Three hours a week.*
8. Mechanical Laboratory. Lining up and adjusting the steam engine; use of the indicator; valve setting; tests of the engine. *Three hours a week.*
9. Advanced Steam Engineering. Thermodynamics; application of thermodynamics to steam and other heat engines. *Three hours a week.*
10. Steam Engine Designing. *Three hours a week.*
11. Boiler and Chimney Designing. *Three hours a week.*
12. Heating and Ventilation. *Three hours a week.*
13. Specifications and Projects.
 - (a.) The law of contracts as applied to engineering work, together with typical forms of specifications. Taken with the students in Civil Engineering, 18 (a). *One hour a week.*
 - (b.) The study of some project in mechanical engineering. Each student will be required to solve the problem in his own way; to prepare plans and specifications in accordance with his solution; and to present an argument in support of his method of solution. *Two hours a week.*
14. Engine Designing. Work in the drawing-room to accompany Course 10. *Six hours a week.*
15. Engine Designing. Work in the drawing-room to accompany Course 10, for students in Electrical Engineering. *Three hours a week.*
16. Boiler Designing. Work in the drawing-room to accompany Course 11. *Nine hours a week.*
17. Mechanical Laboratory. Tests of the steam and gas engines. *Three hours a week.*

18. Mechanical Laboratory. Boiler tests; visits to manufacturing establishments. *Three hours a week.*
19. * Hydraulics. *Three hours a week.*

In addition to the above the following courses given in the Medical Department of the University are open to students in the College, and will be credited towards a medical degree for those students who enter the Medical College later.

ANATOMY.

- a.** Osteology and Syndesmology: Lectures and Laboratory Work. *Three hours a week.* Professor Terry.
- b. Splanchnology and Neurology: Anatomy of the Thoracic and Abdominal Viscera, and Brain and Spinal Cord. Lectures and Demonstrations. *Three hours a week.* Professor Terry.
- c. Myology, Angiology, and Neurology: Anatomy of the Muscular System, of the Circulatory System, and of the Distribution of Peripheric Nerves. Lectures and Demonstrations. *Three hours a week.* Dr. Blair.
- d, e. Practical Anatomy: Dissection of Typical Vertebrates and Human Dissection. *Three afternoons a week.* Professor Terry and Dr. Blair.
- f, g. Special Dissections: Work arranged by the teachers in regard to the wants and predilections of the individual student. These courses can be taken only after d and e have been certified. *Three afternoons in the first term and two afternoons in the second term.* Professor Terry and Dr. Blair.

* For the present year Theoretical Hydraulics will be taught by Professor Woodward.

** The letters a, b, etc., refer to the announcement of courses as given in the catalogue of the Medical Department, to which students are referred for additional details.

HISTOLOGY.

- a, b. Laboratory Work with Explanatory Lectures. *Six hours a week.* Professor Budgett.

PHYSIOLOGY.

- a. First Half of Physiology. Lectures and Demonstrations. *Three hours a week.* Professor Budgett.
b. Second Half of Physiology. Lectures and Demonstrations. *Three hours a week.* Professor Budgett.
c. Laboratory Work in Physiological Chemistry. *Four hours a week.* Professor Budgett.

PATHOLOGY AND BACTERIOLOGY.

- . Lectures on Bacteriology. *One hour a week.* Professor Ravold.
g. Laboratory Course in Bacteriology. *Four hours a week.* Professor Ravold.

HYGIENE.

- Lectures and Demonstrations on Hygiene and Sanitary Medicine *Two hours a week.* Professor Ravold.

FORENSIC MEDICINE.

- A Course of Lectures. *Three hours a week.* Comprising the following subjects: Chemistry and Detection of Poisons, by Prof. Warren. Symptoms and Treatment of Poisoning, by Dr. Tuttle. Microscopy of Blood Stains, Hair, etc., by Prof. Budgett. Abortions, Diagnosis of Recent Labor, Rape, etc., by Prof. Schicardz. Legal Aspects of Insanity, Injuries to the Nervous System, Alcoholism, Sunstroke, etc., by Prof. Fry. Legal Aspects of Traumatism and Surgical Injuries; Post-mortem Examinations, by Dr. Kodis. Medical Jurisprudence, by Prof. Nagel.

THE COLLEGE.

ADMISSION.

Candidates for admission to the College will present themselves for examination on Monday, June 17, 1901, in room No. 8, east wing of the University Building, at 9 o'clock a. m. A second examination will be held on Tuesday, September 24, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other colleges are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.*

1. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals, proper construction of sentences; clearness and conciseness of expression.

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*; Shakespeare's *Merchant of Venice*; Addison's Roger de Coverley papers from *The Spectator*, Goldsmith's *Vicar of Wakefield*, George Eliot's *Silas Marner*, Longfellow's *Evangeline*, and Emerson's essays on *Friendship, Manners, Compensation, History, Character*.

- II. *Algebra*, including radicals and equations of the second degree.
- III. *Elementary Plane and Solid Geometry*. Wells' or Wentworth's *Geometry* or an equivalent.
- IV. *Latin*. Grammar, four books of Cæsar, seven orations of Cicero, and six books of the *Aeneid* of Virgil. Prose Composition.
- V. *Modern Language*. Either French or German at the option of the candidate; facility in reading ordinary prose at sight and knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.

* *Greek* is not required for admission; but candidates who intend to continue the study of *Greek* after admission to the College must fulfill the following requirements: —

Goodwin's *Grammar and Reader*; or *Grammar, four books of the Anabasis, and three books of the Iliad*; prose composition.

VI. History. Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools; of Greece and Rome, such as is found in Pennell's or Smith's Small Histories.

VII. Elementary Physics. Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

SPECIAL STUDENTS.

Special Students may be admitted to one or more courses in the college upon the following conditions: —

1. That evidence of proper preparation, satisfactory to the committee and to the instructors concerned, be submitted before admission to any course or courses.
2. That candidates for degrees who fail in the work of the regular courses shall not have the privilege of becoming Special Students, unless such failure shall come from physical inability to do the required work.
3. That Special Students shall not be regarded as candidates for a degree.

All matters concerning Special Students are referred to a standing committee of the Faculty, which is composed of Professors Snow, Waterhouse and Keiser. Applications should be made to Professor Snow, Chairman.

ARRANGEMENT OF STUDIES IN THE COLLEGE.

FRESHMAN YEAR.

**Prescribed Studies.*

English, Courses, 1 and 2.

German, Courses 1 and 2, or French, Courses 1 and 2, for those who do not present both of these languages for admission.

Elective Studies.

In addition to the prescribed studies, every Freshman is required to take each term elective studies amounting to *three full courses*. No Freshman may elect more than one course in the same subject without the consent of the Dean.

The following courses are open to Freshmen:—

Greek, 1, 2.

Latin, 1, 2.

English, 1, 2.

German, 1, 2.

French, 1, 2.

History, 1, 2.

Mathematics, 1, 2.

Drawing, 1, 2.

Physics, 1, 2.

Chemistry, 1, 2.

Botany, 1, 2.

A Freshman who is qualified to take a higher course in any study named above may do so, with the permission of the instructor in the course and the Dean of the College.

* The figures indicate the numbers of the Courses of Instruction.
See pp. 32-49.

SOPHOMORE AND JUNIOR YEARS.

The prescribed work of the Sophomore and Junior Years consists of:—

English, Courses 3, 4 and 5, 6.

Besides the prescribed courses every Sophomore and every Junior is required to take each term *four elective courses*, or an equivalent amount of courses and half courses.

SENIOR YEAR.

Eight courses, all elective, are required in the Senior year.

CHOICE OF STUDIES.

Every student is required to give notice in writing to the Dean of the College on the first day of each term of his choice of studies for that term.

Changes may be made only by permission of the Dean, to whom application must be made in writing, with a full statement of reasons.

No student will be allowed to elect any course for which his previous training has not fully prepared him.

REQUIREMENT FOR THE DEGREE OF BACHELOR OF ARTS.

The satisfactory completion of thirty-eight courses of one term each, with three recitations a week (or their equivalent), is necessary for the degree of Bachelor of Arts.

THE SCHOOL OF ENGINEERING.

ADMISSION.

Candidates for admission to the School of Engineering will present themselves for examination on Monday, June 17, 1901, in room No. 8, east wing of the University Building, at 9 o'clock a. m. A second examination will be held on Tuesday, September 24, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other institutions are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression.

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*, *Shakespeare's Merchant of Venice*, *Addison's Roger de Coverley* papers from *The Spectator*, *Goldsmith's Vicar of Wakefield*, *George Eliot's Silas Marner*, *Longfellow's Evangeline*, and *Emerson's essays on Friendship, Manners, Compensation, History, Character*.

II. *Algebra*, including radicals and equations of the second degree.

III. *Elementary Plane and Solid Geometry.* *Wells'* or *Wentworth's Geometry* or an equivalent.

IV. *Language.* a, b, c, or d.*

a. *FRENCH.* Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into French.

b. *GERMAN.* Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into German.

* It is assumed that a thorough course in any one of these languages extending over two years of, say, thirty-five weeks each, three hours a week, or its equivalent, will be sufficient to prepare a candidate to meet the above requirement.

c. SPANISH. Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into Spanish.

d. LATIN. In place of a modern language an acquaintance with Latin acquired by two years' successful study will be accepted. This should comprise: First, in grammar, a good knowledge of etymology and syntax, special attention being given to inflections and the construction of cases and moods; second, the translation of four books of Caesar or equal amounts of such equivalents as Nepos and Sallust. Reading of easy Latin at sight may be substituted for two books of Caesar.

V. *History.* Of the United States and of England such as is found in any text-book on history intended for the use of preparatory schools.

N. B. — In place of the work in the History of England, an equivalent amount of work in the history of some other country, in Ancient History, or in General History will be accepted.

VI. *Elementary Physics.* Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-book of Physics."

ARRANGEMENT OF STUDIES IN THE SCHOOL OF ENGINEERING.

The courses of study in the School of Engineering are five in number:—

- I. CIVIL ENGINEERING.
- II. MECHANICAL ENGINEERING.
- III. ELECTRICAL ENGINEERING.
- IV. CHEMISTRY.
- V. SCIENCE AND LITERATURE.
- VI. ARCHITECTURE.

*FRESHMAN YEAR.

The same for all Courses.

FIRST TERM.

English, 1.†	Mathematics, 1.
German, 1 or } **	Physics, 1.
French, 1 }	Chemistry, 1.
History, 1.	Drawing, 1.

SECOND TERM.

English, 2.	Mathematics, 2.
German, 2 or }	Physics, 2.
French, 2. }	Chemistry, 2.
History, 2.	Drawing, 2.

* In the School of Engineering all the studies for each course are prescribed; there is no choice except as indicated.

** German is required of those who present French for admission: French of those who present German.

† The figures indicate the numbers of the Courses of Instruction. See pp. 32-49.

SOPHOMORE YEAR.*The same for all Courses.***FIRST TERM.**

German, 3 or }	Chemistry, 3.
French, 3 }	Drawing, 3.
Mathematics, 3.	Descriptive Geometry, 1.
Physics, 3.	Civil Engineering, 1.

SECOND TERM.

Mathematics, 4.	Geology, 1.
Mechanics, 1.	Descriptive Geometry, 2.
Physics, 4.	Civil Engineering, 2.
Chemistry, 4.	

N. B. — In addition to the above, Shop-work 1-2 (3 hours a week) is required of students who have not had Shop-work before admission.

I. CIVIL ENGINEERING.**FRESHMAN AND SOPHOMORE YEARS.**

(See above.)

JUNIOR YEAR.**FIRST TERM.**

Mathematics, 5.	Civil Engineering, 3.
Mechanics, 2.	Civil Engineering, 5.
Physics, 5.	Civil Engineering, 6.
Botany, 8.	Civil Engineering, 7.

SECOND TERM.

Mechanics, 3.	Civil Engineering, 9.
Physics, 6.	Civil Engineering, 12.
Mechanical Engineering, 4.	Civil Engineering, 13.
Civil Engineering, 8.	

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Civil Engineering, 4.
Mechanical Engineering, 19.	Civil Engineering, 10.
Astronomy, 1.	Civil Engineering, 11.
Economics, 3.	Botany, 16.

SECOND TERM.

Mechanics, 5.	Civil Engineering, 16.
Astronomy, 2.	Civil Engineering, 17.
Civil Engineering, 15.	Civil Engineering, 18.

Civil Engineering, 19.

II. MECHANICAL ENGINEERING

AND

III. ELECTRICAL ENGINEERING.

FRESHMAN AND SOPHOMORE YEARS.

(See p. 58.)

JUNIOR YEAR.

FIRST TERM.

Mathematics, 5.	Mechanical Engineering, 1.
Mechanics, 2.	Mechanical Engineering, 2.
Physics, 5.	Mechanical Engineering, 5.
Civil Engineering, 3.	Mechanical Engineering, 7.

N. B.—Students who have not had instruction in Shop-work before admission are required to omit Mechanical Engineering 7, and for a part of Mechanical Engineering 5 to substitute Shop work 3.

SECOND TERM.

Mechanics, 3.	Mechanical Engineering, 3.
Physics, 6.	Mechanical Engineering, 4.
Civil Engineering, 12.	Mechanical Engineering, 6.
Civil Engineering, 14.	Mechanical Engineering, 8.

N. B.—Students who have not had instruction in Shop-work before admission are required to substitute Shop-work 4 for Civil Engineering 14.

II. MECHANICAL ENGINEERING.

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Mechanical Engineering, 9.
Physics, 7.	Mechanical Engineering, 10.
Physics, 8.	Mechanical Engineering, 14.
Mechanical Engineering, 19.	Mechanical Engineering, 17.

SECOND TERM.

Mechanics, 5.	Mechanical Engineering, 16.
Mechanical Engineering, 11.	Mechanical Engineering, 18.
Mechanical Engineering, 12.	Thesis.
Mechanical Engineering, 13.	

N. B. — Students who have not had instruction in Shop-work before admission are required to take Civil Engineering 14, in addition to the above.

III. ELECTRICAL ENGINEERING.

SENIOR YEAR.

FIRST TERM.

Mechanics, 4.	Mechanical Engineering, 9.
Physics, 7.	Mechanical Engineering, 10.
Physics, 8.	Mechanical Engineering, 15.
Physics, 9.	Mechanical Engineering, 19.

SECOND TERM.

Mechanics, 5.	Mechanical Engineering, 11.
Physics, 10.	Mechanical Engineering, 12.
Physics, 12.	Thesis.
Physics, 14.	

N. B. — Students who have not had instruction in Shop-work before admission are required to take Civil Engineering 14 in addition to the above.

IV. CHEMISTRY:
FRESHMAN AND SOPHOMORE YEARS.

(See p. 58.)

JUNIOR YEAR.

FIRST TERM.

Mathematics, 5.	Chemistry, 7.
Mechanics, 2.	Chemistry, 13.
Physics, 5.	Botany, 1.
Chemistry, 5.	

SECOND TERM.

Mechanics, 3.	Chemistry, 14.
Physics, 6.	Chemistry, 15.
Chemistry, 6.	Mechanical Engineering, 4.
Chemistry, 8.	

SENIOR YEAR.

FIRST TERM.

Physics, 7.	Chemistry, 16,
Chemistry, 9.	Botany, 16.
Chemistry, 11.	

SECOND TERM.

Chemistry, 10.	Botany, 17.
Chemistry, 12.	Thesis.
Chemistry, 17.	

V. SCIENCE AND LITERATURE.

FRESHMAN AND SOPHOMORE YEARS.

(See p. 58.)

JUNIOR YEAR.

The work of the Junior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

SENIOR YEAR.

The work of the Senior year consists of nine courses, all elective. The choice of studies must be approved by the Dean of the School of Engineering at the beginning of each term.

COURSE IN ARCHITECTURE.

A four-years' course in Architecture will be added to the curriculum of the School of Engineering in September, 1901. The following is a preliminary statement of the work, subject to such modifications as may seem advisable.

Students may undertake the work of the Freshman and Sophomore years of this course in September, 1901; but no instruction in the Junior and Senior years of the course will be given before September, 1902.

INSTRUCTION TO BE PROVIDED.

ARCHITECTURE.

1. History of Ancient Architecture. Egyptian, Assyrian, Persian, Greek, Roman. *Three times a week. Every third year. Sophomores, Juniors, and Seniors together.*
2. History of Mediaeval Architecture. Byzantine, Romanesque, Gothic. *Three times a week. Every third year. Sophomores, Juniors, and Seniors together.*
3. History of Renaissance and Modern Architecture. The Renaissance, Modern Revivals, Oriental and American Architecture. *Once a week. Every third year. Sophomores, Juniors, and Seniors together.*
4. The Elements of Architecture. Analysis of the Five Orders of Classic Architecture and exercises in drawing and rendering them. *One lecture or recitation, and six hours drawing a week.*
5. The Elements of Architecture. Analysis of the elements employed in Classic and Renaissance Design, and exercises in drawing and rendering them. Mouldings,

- pedestals, pilasters, pediments, inter-columniations, arches and vaults, imposts, doors, windows, roofs, spires, steps, stairs, domes. *One lecture or recitation, and six hours drawing a week.*
6. Elementary Architectural Drawing. Elementary problems in design, involving the use of the orders and the elements of design. Theory of the composition of line drawings. Rendering of architectural drawings in pen-and-ink freehand. Elementary application of India-ink and color washes to architectural drawings. *Six hours drawing a week.*
7. Sketch Design. Problems to be rendered in the form of sketch designs in limited time of one or two days. Alternating with course 8. The regular problems in design. *Six hours drawing a week.*
8. Design. The development of the principles of composition and planning by the working out of problems in design. Alternating with course 7. *Ten hours drawing a week.*
9. Sketch Design. Advanced problems to be rendered in the form of sketch designs, in limited time of one or two days. Alternating with regular problems in design. *Six hours drawing a week.*
10. Advanced Design. Application of the principles of preceding courses to advanced problems in planning and composition. *Eighteen hours drawing a week.*
11. Thesis. An extended problem, involving original research and study in advanced planning and composition, with memoir and essay on materials and construction. *Twenty-four hours drawing a week.*
12. Building Construction. The nature and use of materials employed in architectural construction. Approved methods of modern building. Specifications and working drawings. Lectures. Drawing room work and visits of inspection. *One hour lecture and two hours drawing a week, throughout two years.*

13. **History of Sculpture and Painting.** A course of lectures on the history of sculpture and painting and their relation to architecture, with research and use of text-book. *One lecture a week.*

DRAWING.

1. **Freehand Drawing.** Freehand drawing in outline of groups of objects, both from the objects themselves and from memory. The accurate observation of form and its correct expression. The study of proportions and the laws of perspective involved in freehand drawing from objects. Freehand drawing and shading from objects with pencil, pen and ink, and brush. The study of light and shade as a means of expressing form on a flat surface. The methods of suggesting in sketches the character of different materials. Elementary architectural methods of freehand drawing. *Ten hours a week.*
2. **Practical Freehand Lettering.** Practical freehand lettering for use on plates and working drawings. Geometrical Drawing. Those problems in construction that are needed in the study of descriptive geometry, machine design, etc. Elementary architectural methods of instrumental drawing. *Ten hours a week.*
3. **The Making of Tracings and Blue-Prints.** Isometric Drawing of Architectural Subjects. The Essentials of Linear Perspective, with Problems. *Six hours a week.*
4. **Advanced Free-hand Drawing.** Drawing in Charcoal from casts of architectural ornament, and from casts of parts of human form. *Four hours a week.*
5. **Water-Color Drawing.** Drawing in water-color from still-life and from nature. *Four hours a week.*
6. **Water-Color Rendering.** Advanced studies in the rendering of architectural perspectives. *Four hours a week.*
7. **Drawing from the Antique.** *Four hours a week.*

ARRANGEMENT OF STUDIES.

FRESHMAN YEAR.

FIRST TERM.

English, 1.	Mathematics, 1.
German, 1 or }	Physics, 1.
French, 1. }	Chemistry, 1.
History, 1.	Drawing, 1.*

SECOND TERM.

English, 2.	Mathematics, 2.
German, 2 or }	Physics, 2.
French, 2. }	Chemistry, 2.
History, 2.	Drawing, 2.*

SOPHOMORE YEAR.

FIRST TERM.

German, 3 or }	Drawing, 3.*
French, 3. }	Architecture, 1.
Mathematics, 3.	Architecture, 4.
Descriptive Geometry, 1.	

SECOND TERM.

Mathematics, 4.	Descriptive Geometry, 2.
Mechanics, 1.	Architecture, 1.
Physics, 4.	Architecture, 5.
Geology, 1.	Architecture, 6.

JUNIOR YEAR.

FIRST TERM.

Mathematics, 5.	Architecture, 2.
Mechanics, 2.	Architecture, 7.
Drawing, 4.*	Architecture, 8.
Drawing, 5.*	Architecture, 12.

* The figures after the courses in Drawing refer to the courses given on page 65.

SECOND TERM.

Drawing, 4.*	Architecture, 8.
Drawing, 5.*	Architecture, 12.
Architecture, 2.	Civil Engineering, 12.
Architecture, 7.	

SENIOR YEAR.**FIRST TERM.**

Architecture, 3.	Architecture, 13.
Architecture, 9.	Drawing, 6.*
Architecture, 10.	Drawing, 7.*
Architecture, 12.	Mechanical Engineering, 12.

SECOND TERM.

Architecture, 3.	Drawing, 6.*
Architecture, 11.	Drawing, 7.*
Architecture, 12.	Civil Engineering, 16.
Architecture, 13.	

APPLIANCES IN CIVIL ENGINEERING.

Surreyng Instruments. — The equipment includes three transits for ordinary field work, one altazimuth instrument for triangulation and astronomical work, reading to ten seconds of arc on both horizontal and vertical circles, two engineers' levels, two needle compasses, one sextant, one plane table, one 300-foot steel tape standardized, with all the necessary accompanying apparatus for field and office work, such as stadia rods, level rods, stadia slide rules, chains, tapes, signals, protractors, parallel rules, etc.

* The figures after the courses in Drawing refer to the courses given on page 65.

There is also a complete mining transit, adapted to the use of the stadia, which may be used for topographical work if required.

Library, Models, and Drawings. — There is a well selected working library accessible to students which they consult freely on assigned topics. There is also a large assortment of drawings of the most interesting engineering and architectural structures at home and abroad. Many photographs and blue prints have been collected illustrating all the more common styles of bridges with their details.

The Testing Laboratory. — The facilities in the testing laboratory are very complete. A floor space of about 2,400 square feet is occupied with the following appliances: Two Riehle universal testing machines with a capacity of 100,000 lbs. and 20,000 lbs., respectively; a beam testing machine, with a capacity of 100,000 lbs. on a length of 24 feet; two beam testing machines with a capacity of 6,000 lbs. on a length of five feet with micrometer deflection measuring apparatus; a column testing machine with capacity of 1,000,000 lbs. on a length of 36 ft. or less; cement testing machines of the Fairbanks, the Riehle, and the Olsen types; a complete standard set of German briquet making and testing machines and scales, with pounding apparatus; an extensometer apparatus reading to ten thousandths of an inch; one eight-horse-power steam engine; one five-horse-power dynamo; one planer and one lathe for iron work; one wood planer, one band saw, and one cutting off circular saw for shaping timber specimens; two drying

ovens and three sets of scales; a dry kiln with steam coil and exhaust fan for drying lumber; complete sets of bench and carpenter's tools, standard gauges, scales, etc.

APPLIANCES IN MECHANICAL ENGINEERING.

Drawings and photographs illustrating the best practice in all branches of mechanical engineering, including a number of drawings of the machinery of ships for the U. S. Navy, and examples of the best practice in the construction of locomotives, stationary engines, and machine tools are provided. Students have access to a small but modern and carefully selected technical library, and to a number of the best technical journals.

The laboratory contains a steam engine, a Westinghouse air compressor, a Bogart gas and gasoline engine, a Carpenter steam calorimeter, a pair of Crosby indicators, a planimeter, a tachometer, a Thompson coal calorimeter, a pyrometer, a complete set of apparatus for testing lubricants, a standard gas meter, a standard test gauge, a Prony brake, thermometers, revolution counters, and such tools as are necessary.

Students have access to the shops of the Manual Training School, in which they receive a training in the use and care of metal and wood working tools and machinery.

APPLIANCES IN ELECTRICAL ENGINEERING.

The Electrical Engineering Laboratory contains a high speed Buckeye Engine of twenty horse-power; two

Gramme dynamos, the one being a series and the other a shunt-wound machine; smaller motors of various types; voltmeters, amperemeters and galvanometers of various types and capacities; a Brackett cradle-ergometer, upon which one dynamo is mounted, and by which the power applied to it can be measured; a Wheatstone bridge; a Prony brake; a Siemens electro-dynamometer; a mercury column fifty feet in height, which is arranged for testing steam gauges and indicator springs at any temperature, and a compression air pump capable of working to twenty atmospheres.

The rooms are wired conveniently for practical measurements upon the electric plant, and for the measurement of candle power of lamps. The alternating current from the public mains of the Missouri-Edison Electric Light and Power Company is carried to the laboratory switchboard, and is thus available for experimental work.

LECTURE FOUNDATIONS.

A Lecture Endowment Fund, amounting to \$27,000, was created in 1875, by one of the early friends of the University, Mr. William Henry Smith. It was given without any restrictions, except that the fund should be increased, if practicable, by accruing interest, to \$30,000, which has been accomplished, and that no part of the principal should be expended.

The beginning of a fund for the encouragement of the study of American History has been made by a gift of \$15,000 by Mrs. Mary Hemenway of Boston, Massachusetts.

Upon this foundation a *University Professorship of American History* has been established, and the chair was filled in 1884 by the appointment of Dr. John Fiske, of Cambridge, Mass.

LIBRARY AND READING ROOM.

Necessary books of reference are provided, and also a good selection of periodical literature. No attempt is made at present to gather a general library. During the year 1880 a gift of about three thousand volumes was received from the family of the late Joseph Coolidge, of Boston. The collection, known as the Coolidge Library, is especially rich in excellent editions of Italian and French authors, and is a very material addition to the usefulness of the library.

Through the liberality of a number of citizens of St. Louis an arrangement has been made by which the privilege of using the Mercantile Library has been extended, under prescribed conditions, to such members of the University as may be designated by the Chancellor.

GYMNASIUM.

A gymnasium for the use of the Undergraduate Department is supplied with all necessary apparatus. While encouraging systematic and wholesome exercise, the University does not wish to foster undue interest in the feats of athletes, and discourages exercises which involve personal risk to the performers. All class exercises are conducted by a professional instructor.

SCHOLARSHIPS.

One perpetual scholarship, founded by the payment of \$5,000 and entitling the holder to all the advantages of all the departments of the University forever, has been placed at the disposal of the Mercantile Library Association, with the recommendation "that when the applicants for scholarship are of equal merit, the preference shall be given to one for some mechanical pursuit."

Two scholarships are also held by the St. Louis High School, one of which is given to the student graduating from the school in June with the highest record, and the other to the student graduating in January with the highest record. These scholarships entitle the holders to free tuition in the Undergraduate Department.

One scholarship is also held by the School Board of Kansas City for the benefit of the graduates of the Kansas City High School. This scholarship entitles the holder (who is to be selected by the School Board) to free tuition in the College or the School of Engineering. Reports of the standing of the student will be made to said Board annually by the Dean.

A trust fund of \$30,000 has been accepted by the University from the WESTERN SANITARY COMMISSION, for the establishment of TWENTY FREE SCHOLARSHIPS in the Undergraduate Department, to be filled by children or descendants of Union soldiers who served in the late civil war. In default of such applicants, candidates will be appointed by the Chancellor of the University with the advice of the Faculty. Preference is given to those

in straitened circumstances, and no student is accepted or continued who is not of good moral character, who does not sustain satisfactory examinations or who fails to comply with the rules of the University.

From the same source a SUSTENTATION FUND of \$10,000 has been accepted, the income of which is expended in aid of students in straitened circumstances, giving preference always to the descendants of Union soldiers, as above.

EXAMINATIONS.

The examinations in the Undergraduate Department are frequent and rigid. No promotions to higher classes are made except upon conclusive evidence that the antecedent subjects have been well mastered. Reports of the standing of individual students will be made by the Deans to parents or guardians, if such are requested.

DEGREES IN THE UNDERGRADUATE DEPARTMENT.

I. IN THE COLLEGE.

The degree of *Bachelor of Arts* is conferred upon the satisfactory completion of thirty-eight courses.

II. IN THE SCHOOL OF ENGINEERING.

1. The degree of *Bachelor of Science* is conferred on the satisfactory completion of four years' work.

2. The professional degrees of *Civil Engineer*, *Mechanical Engineer* and *Electrical Engineer* are conferred only after three or more years of actual and successful engineering practice, one year of which must have been spent in responsible charge of engineering work, and the presentation of an acceptable thesis; both the thesis and the experience to be such as to show an ability to design and execute engineering work.

The Bachelor degrees are in three grades indicated by the words *cum laude*, *magna cum laude* and *summa cum laude*, respectively.

Every member of the graduating class who has attained *ninety per cent* of the maximum mark on the general scale for the four years may be recommended for a degree *summa cum laude*.

Every member of the graduating class (not recommended for the degree of *summa cum laude*) who has

attained *eighty-five per cent* of the maximum mark on the general scale for the four years may be recommended for a degree *magna cum laude*.

Every member of the graduating class (not recommended for a degree of *summa* or *magna cum laude*) who has attained *eighty per cent* on the general scale for the four years may be recommended for a degree *cum laude*.

No student will be recommended for a degree who has not passed all his examinations and handed in such projects or theses as may be required.

The diploma fee is three dollars, payable in advance.

ADVANCED DEGREES.

The degree of *Master of Arts*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Arts.

The degree of *Master of Science*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Science, of Civil Engineer, of Mechanical Engineer, of Electrical Engineer, of Engineer of Mines, or of Chemist.

The degree of *Doctor of Philosophy*, which is granted after not less than two years of residence and study (the two years of residence and study may include the year of preparation for the Master's degree), is open to all who have received the degree of Master from this University.

The degrees of Master of Arts, Master of Science, and Doctor of Philosophy are open to graduates of other

institutions who shall have satisfied the Committee on Advanced Degrees of their fitness.

Applications for candidacy for the degree of Master of Arts, Master of Science, or Doctor of Philosophy are referred to a committee of five members of the Faculty of the Undergraduate Department, annually appointed, known as the *Committee on Advanced Degrees*.

The Committee decides upon the admission of the candidate; determines the course of study which the candidate is to pursue; determines by examination, thesis, or both, whether a candidate is suitably prepared for the degree; and recommends the granting of the degree to the Faculty of the Undergraduate Department.

REQUIREMENTS FOR THE MASTER'S DEGREE.

- a. At least one year of residence and study.
- b. Every candidate must pass such written examinations as the Committee on Advanced Degrees may see fit to prescribe.
- c. In addition to the work specified in each case, every candidate shall present a satisfactory thesis, which must be submitted not later than May 1 of the year in which the degree is to be conferred.

REQUIREMENTS FOR THE DOCTOR'S DEGREE.

- a. Two years of residence and study.
- b. Every candidate must satisfy the Committee on Advanced Degrees that he has a reading knowledge of French and German.

c. Every candidate shall present an acceptable thesis, which shall be the result of original investigation. This thesis must be presented not later than April 1 of the year in which the degree is to be conferred; and every candidate must furnish the Committee on Advanced Degrees with 200 printed copies of his thesis, after its acceptance, before he can be recommended for the degree.

FEES.

Every candidate for the Master's degree is required to pay fifty dollars, and every candidate for the Doctor's degree one hundred dollars; one half to be paid as a condition of admission to candidacy, and the remainder before the conferring of the degree.

The diploma fee is five dollars, payable in advance.

COMMITTEE ON ADVANCED DEGREES FOR 1900-1901.

The following members of the Faculty constitute the Committee for 1900-1901: Professors Snow (chairman), Nipher (secretary), Engler, Heller, and Keiser.

TUITION.

Tuition in the Undergraduate Department for students in full standing is \$150 a year, payable semi-annually, in advance if required, and always before the middle of the term.

A matriculation fee of five dollars, payable in advance, is required of all candidates for degrees.

Tuition for special students is \$15.00 for each course.

BOARD AND LODGING.

Students living at a distance from the University have no difficulty in securing rooms and board at reasonable rates. The yearly expenses may range between the following estimates, according to taste and habits of economy : —

Tuition	\$150 00 — \$150 00
Board, lodging, and washing, 9 months . .	200 00 to 300 00
Books and instruments	10 00 " 20 00
Incidentals	15 00 " 30 00
Total for one year	<u>\$375 00 to \$500 00</u>

Books and instruments may be obtained at cost from the *Co-operative Association*, organized and managed by the students of this Department.

HENRY SHAW SCHOOL OF BOTANY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

HENRY SHAW SCHOOL OF BOTANY.

ESTABLISHED JUNE 8, 1885.

ADVISORY COMMITTEE.

THE CHANCELLOR OF THE UNIVERSITY, *ex officio.*

WILLIAM G. FARLOW, M.D.

GEO. J. ENGELMANN, M.D.

GEORGE E. LEIGHTON.

WILLIAM L. HUSE.

INSTRUCTORS.

WILLIAM TRELEASE,

DIRECTOR AND

ENGELMANN PROFESSOR OF BOTANY.

HERMANN VON SCHRENK,

INSTRUCTOR IN CRYPTOGAMIC BOTANY.

HERBERT F. ROBERTS,

GENERAL INSTRUCTOR.

ELLEN C. CLARK,

ASSISTANT AT THE MARY INSTITUTE.

GENERAL INFORMATION.

In June, 1885, Mr. Henry Shaw, of St. Louis, authorized the Chancellor of the University to place before the Board of Directors a plan of action for the establishment of a School of Botany, as follows: —

That he proposed, with the concurrence of the Directors, to endow a School of Botany as a department of Washington University, by donation of improved real estate, yielding over \$5,000 revenue, and to place it in such relation with the largely endowed Missouri Botanical Garden and Arboretum as would practically secure their best uses, for scientific study and investigation, to the professor and students of the said School of Botany, in all time to come.

At a meeting of the Board of Directors held June 8, 1885, the following resolutions were, therefore, offered, in grateful acceptance of Mr. Shaw's proposal: —

1. That a School of Botany be established as a special department of Washington University, to be known as the Henry Shaw School of Botany.
2. That a professorship of Botany be therein established, to be known as the Engelmann Professorship.
3. That Professor Wm. Trelease, of the University of Wisconsin, be invited to fill the same; his duties to begin at the commencement of the next academic year, September 17.
4. That said School of Botany be placed under the special care and direction of an advisory committee, to consist of five members, of whom two shall be members of this Board, and two shall be selected outside of the Board — the Chancellor of the University being a member *ex officio*.

This report was accepted and the resolution unanimously adopted. The record of such action was then submitted to Mr. Shaw and approved by him.

On this foundation, the School of Botany was opened in the autumn of 1885. In his will, admitted to probate in 1889, Mr. Shaw further provided for the maintenance of the income of the School up to a certain limit, and took steps calculated to secure the proposed close co-operation between the School of Botany and the Botanical Garden.

The laboratory of the School of Botany is temporarily located at 1724 Washington avenue, and a small library, containing the usual laboratory manuals and class books, which is kept at the laboratory for reference, is added to as new books, needed for class use, appear. In addition to alcoholic and imbedded material, a small herbarium is being formed, which is intended to contain representatives of the local flora. Advanced students, some of whose work is done at the Garden, also have the privilege of consulting, under necessary restrictions, the excellent herbarium and library maintained there, and now comprising about 350,000 sheets of specimens, about 35,000 books and pamphlets, and a large collection of wood veneers and sections; and no effort is spared to make the Garden equipment as complete as possible in any line of work taken up by competent investigators.

The instrumental equipment of the laboratory includes one microscope by Zeiss, with the necessary objectives, ranging from AA. to 1-18 in. oil immersion, and accessories for spectroscopic studies and work with polarized

light; twenty microscopes by Leitz, with the objectives needed for the best work (including five 1-12 in. oil immersion lenses, one 1-16 in. oil immersion, and one 1-20 in. oil immersion), polariscope, camera lucidas of several patterns, etc.; sixteen dissecting microscopes by Bausch and Lomb; two dissecting microscopes by Leitz, one of them provided with camera lucida; a projecting apparatus for delineating objects under a low power of enlargement; a simple outfit comprising all that is necessary for ordinary bacteriological investigation; and good microtomes and other apparatus needed for histological work and elementary physiological experimentation. Students are provided by the laboratory with all necessary instruments and supplies (excepting razors or other cutting instruments) without charge except for breakage or other injury and for slides and cover glasses used for permanent preparations; but when alcohol or other expensive substances are used in quantity, as in work on bacteria, a special charge may be made for material used.

The working year of the School of Botany is of the same extent as that of the Undergraduate Department of the University, and is similarly divided, except for a few special teachers' classes corresponding to the usual school terms.

The work offered students is of two classes: undergraduate studies, including at present seventeen stated electives — the equivalent of nearly three full years' work, — and post-graduate or special courses for advanced students, planned in each case to meet the needs of the student. For the convenience of students, nearly all ele-

mentary instruction is given at the laboratory, near the other University buildings, where the principal instrumental equipment is kept, but the study of living plants, and advanced herbarium and library work, are provided for at the Garden. All courses capable of being so taught are given in the laboratory, and supplemented by lectures and quizzes by the teacher. The few lecture courses offered are illustrated wherever possible by specimens exhibiting the subject under consideration, and by wall charts and the stereopticon.

A list of the undergraduate electives is given above (p. 32), in the general information concerning the Undergraduate Department. Under the advice of the Dean of the College and the Professor of botany, students who wish to make a specialty of botany through their course may arrange to take all of these electives and to follow them by a piece of investigation on which a thesis is to be based; and regularly enrolled special students who are not candidates for a degree may give the greater part of their time to botanical study, subject to such regulation as is prescribed by the Faculty.

Special classes for the benefit of teachers, and other persons not in attendance at the University, are formed from time to time, and such persons may be admitted to any of the regular electives on the payment of a tuition fee conformed to the general rates of the University, namely, \$15.00 for each full course (of three exercises per week during a term), and \$7.50 for each half course (of less than three exercises per week for the same length of time).

Graduate students who are eligible under the rules of the Faculty to candidacy for a higher degree (p. 75), if suitably prepared, may elect research work in botany, as their principal study for such degree.

Applications for the formation of special classes, and all correspondence concerning the School of Botany, should be addressed to

WILLIAM TRELEASE,
Shaw School of Botany,
St. Louis, Mo.

ST. LOUIS SCHOOL OF FINE ARTS.

(ART DEPARTMENT OF WASHINGTON UNIVERSITY.)

19th and Locust Streets.

**All communications in regard to the School should be
addressed**

ST. LOUIS SCHOOL OF FINE ARTS.

CALENDAR.

1900-1901.

FIRST TERM, DAY SCHOOL, begins Monday, September 24, 1900.
FIRST TERM, DAY SCHOOL, ends Saturday, December 15, 1900.
FIRST TERM, NIGHT SCHOOL, begins Monday, November 5, 1900.
SECOND TERM, NIGHT SCHOOL, ends Saturday, February 2, 1901.
SECOND TERM, DAY SCHOOL, begins Monday, December 17, 1900.
SECOND TERM, DAY SCHOOL, ends Saturday, March 16, 1901.
SECOND TERM, NIGHT SCHOOL, begins Monday, February 4, 1901.
SECOND TERM, NIGHT SCHOOL, ends Saturday, April 27, 1901.
THIRD TERM, DAY SCHOOL, begins Monday, March 18, 1901.
THIRD TERM, DAY SCHOOL, ends Saturday, June 8, 1901.
EXHIBITION OF STUDENTS' WORK, June 11-13, 1901.

1901-1902.

FIRST TERM, DAY SCHOOL, begins Monday, September 23, 1901.
FIRST TERM, DAY SCHOOL, ends Saturday, December 14, 1901.
FIRST TERM, NIGHT SCHOOL, begins Monday, November 4, 1901.
FIRST TERM, NIGHT SCHOOL, ends Saturday, February 1, 1902.
SECOND TERM, DAY SCHOOL, begins Monday, December 16, 1901.
SECOND TERM, DAY SCHOOL, ends Saturday, March 15, 1902.
SECOND TERM, NIGHT SCHOOL, begins Monday, February 3, 1902.
SECOND TERM, NIGHT SCHOOL, ends Saturday, April 26, 1902.
THIRD TERM, DAY SCHOOL, begins Monday, March 17, 1902.
THIRD TERM, DAY SCHOOL, ends Saturday, June 7, 1902.
EXHIBITION OF STUDENTS' WORK, June 10-12, 1902.

ST. LOUIS SCHOOL OF FINE ARTS.

REORGANIZED MAY 22, 1879.

The establishment of the Art School upon a broad and permanent foundation has always been part of the plan of Washington University. For nearly twenty-five years Art instruction has been embodied in the course of study. In 1875, special students were admitted to the Drawing Department, and class and public lectures were given on Art History. The same year an evening school was opened.

On May 22, 1879, the Directors of the University adopted an ordinance establishing a Department of Art in Washington University, from which the following extracts are taken: —

“ A Department of Art is hereby established as a special Department of Washington University, to be known as THE ST. LOUIS SCHOOL OF FINE ARTS.

“ The objects of said Department shall be: Instruction in Fine Arts; the collection and exhibition of pictures, statuary, and other works of art, and of whatever else may be of artistic interest and appropriate for a Public Gallery or Art Museum; and, in general, the promotion by all proper means of aesthetic or artistic education.”

BOARD OF CONTROL.

ELLIS WAINWRIGHT, PRESIDENT.
WINFIELD S. CHAPLIN, CHANCELLOR, *ex officio*.
HARRISON I. DRUMMOND.
ALFRED L. SHAPLEIGH.
CHARLES PARSONS.
CHARLES NAGEL.
GEORGE D. BARNARD.
EDWARD R. HOYT.
HALSEY C. IVES, DIRECTOR, *ex officio*.

INSTRUCTORS AND LECTURERS.

HALSEY C. IVES, DIRECTOR.

Lecturer on the Historical Development of Art.
Pupil of Alexander Piatowski.

ROBERT P. BRINGHURST,

Modeling and Sculpture.

Atelier Dumont, l'Ecole des Beaux Arts.

EDWARD M. CAMPBELL,

Drawing and Painting from Still Life.

Pupil of Boulanger and Lefebvre.

ALICE M. MORE, SECRETARY.

Lecturer on the History of Painting, Renaissance and Modern Schools.

Pupil of the St. Louis School of Fine Arts.

CHARLES WARD RHODES,

Perspective, Shades and Shadows.

Kgl. Academie, Munich, and K. K. Kunstgewerbe Schule, Berlin.

EDMUND H. WUERPEL,

Drawing and Painting from Life, and Composition.

Pupil of Bouguereau, Ferrier, Aman-Jean, and l'Ecole des Beaux Arts.

CHARLES P. DAVIS,*Antique.*

Pupil of N. Y. Art Students' League, Bouguereau, Ferrier, and Fleury.

GRACE HAZARD,*Saturday Classes.*

Pupil of St. Louis School of Fine Arts.

ALICE M. G. PATTISON,*Lecturer on Engraving, Etching, and Allied Arts.*

Pupil of Ross Turner, Wm. M. Chase, and S. R. Koehler.

ELISE BLATTNER,*Lecturer on the History of Art.*

University of Berlin.

LAURENCE EWALD,*Mechanical and Architectural Drawing.*

Pupil of Columbia University, N. Y., and Marcel de Montelos, Paris.

CHARLES A. WINTER,*Drawing and Painting from Life, and Composition.*

Pupil of Bouguereau and Ferrier.

HENRIETTA ORD JONES,*Ceramic Painting.*

Pupil of Franz Bischoff and Otto Punsch.

FREDERICK L. STODDARD,*Design and Water Color.*

Pupil of Bouguereau, Ferrier, Laurens, and Constant.

In addition to the regular staff of instructors, pupil teachers are added from time to time from the advanced students working in the school.

GENERAL INFORMATION.

There are three terms in the year.

Students will be admitted at any time, but not for less than one term, except by special arrangement with the Director.

The school furnishes instruction in Drawing, Modeling, Painting, Artistic Anatomy, Perspective, Composition, Design and Applied Art, Architectural and Mechanical Drawing.

The rooms are open for the study of drawing, painting and modeling, every day during each term from 9 a. m. to 4 p. m. and for the study of drawing from the Antique and Life, mechanical drawing and modeling three evenings in the week, from November to May.

Students may enter any class upon submitting examples of work showing the necessary skill. Applicants for admission to the evening Life Class must submit a drawing of a full length figure from the Antique or Life.

Students who can pass the necessary examination may study Modern Languages, History and Literature in classes of the Undergraduate Department of the University.

The school is fully equipped with models, casts from the Antique, *et cetera*.

The class rooms are adjacent to the galleries of the Museum. The building erected during the past years was especially designed to meet the needs of the various classes of the school and, in its appointments, art students will find every convenience for study,

The artists connected with the school as teachers have received their training in the Art Schools of Europe.

All finished work must be left in the school or if removed by special permission, must be returned before the close of the school year for final examination by the committee appointed for that purpose.

Instruction in all classes of the school is individual. Advancement of each student depends on the degree of proficiency only.

An admission fee of \$2.00 is charged each student on enrolling in the classes of the day school.

TUITION FEES.

TUITION FEES are due and payable to the Treasurer of Washington University, in advance, on enrollment, and on the first of each term. For convenience, the Secretary of the school will receive the fee and transmit it to the Treasurer.

ENROLLMENT FEE. Each student pays this fee once \$2 00
The income from enrollment fees is used in library extension work. Students withdrawing before the end of the year in which the fee is paid may continue the use of the library to the close of the year.

RATES OF TUITION. Antique, Life and Portrait Classes, either or all classes, per term 25 00

RATES OF TUITION. Saturday Class, Antique or Sketch Class, per term 5 00

Students will be admitted to the Day School, per month, with the privilege of one or more classes per day, first month 12 50

Each following month during the year 10 00

EVENING LIFE CLASS. Drawing or Modeling, three times per week, for term of twelve weeks	\$7 50
EVENING CLASS. Antique or Sketching from Life, three times per week, for term of twelve weeks	5 00
EVENING CLASS. Elementary, three times per week, for term of twelve weeks	5 00
EVENING CLASS. Architectural and Mechanical Drawing, three times per week, for term of twelve weeks	5 00
EVENING CLASS. Modeling, three times per week, for term of twelve weeks	5 00

CLASSES IN DESIGN AND APPLIED ART.

Regularly enrolled Art Students will receive instruction in Design without extra charge.

For instruction in Applied Art an additional fee, per term, of \$7.00 will be charged.

Special students will be admitted to these classes per term of twelve weeks	\$25 00
Students enrolled for one month, first month	12 50
Each succeeding month	10 00
For a period less than one month, including freedom of Museum and Library, per week	5 00

ARRANGEMENT OF CLASSES.**MORNING.****CLASSES IN THE ANTIQUE.**

Drawing from the Cast, elementary and advanced, daily, 9 to 12 a. m. Charles P. Davis, Instructor.

LIFE CLASS, NUDE AND DRAPED.

Drawing and Painting from the Nude and Costumed Model in Charcoal, Pastel and Oil Color, daily, 9 to 12 a. m. Edmund H. Wuerpel, Instructor.

CERAMIC PAINTING.

Decoration of China, Porcelain, and Glass, Tuesdays, Thursdays and Saturdays, 9 to 12 a. m. Henrietta Ord Jones, Instructor.

COMPOSITION IN COLOR.

Thursdays, 11:30 to 12:30. Edmund H. Wuerpel, Instructor.

COMPOSITION AND ILLUSTRATION IN BLACK AND WHITE.

Wednesday, 11:30 to 12:30. Charles P. Davis, Instructor

SKETCH CLASS IN BLACK AND WHITE.

Daily, 12:30 to 1 p. m. Free to all students.

PERSPECTIVE.

Mechanical and Freehand Perspective, Shades and Shadows. Winter term, Tuesdays and Fridays, 12 to 12:30 p. m. Charles Ward Rhodes, Instructor.

AFTERNOON.**PAINTING FROM THE HEAD.**

Drawing and Painting from the Head in Charcoal, Pastel and Oil Color, daily, 1 to 4 p. m. Charles A. Winter, Instructor.

PAINTING FROM STILL LIFE.

Oil and Water Color, daily, 1 to 4 p. m. Edward M. Campbell, Instructor.

CERAMIC PAINTING.

Decoration of China, Porcelain, and Glass, Mondays, Wednesdays and Fridays, 1 to 4 p. m. Henrietta Ord Jones, Instructor.

CLASSES IN DESIGN AND APPLIED ART.

Book Cover Designing, Drawing for Illustration, Decoration of Wood and Leather by means of Pyrography (wood burning) and the Application of Color, Stained Glass Designing, Designing for Posters and Advertising Purposes, Decorative Composition, and Surface Decoration as applied to China, Embroidery and other surfaces, daily, 1 to 4 p. m. Frederick L. Stoddard, Instructor.

MODELING.

From Architectural Ornament, the Antique, and Life, daily, 1 to 4 p. m. Robert P. Bringhurst, Instructor.

TEACHERS' COURSE.

Free-hand Drawing from Model, Object, Antique, and Life. Mechanical and Geometrical Drawing. Graphical Solution of Problems in Plane Geometry. Plans, Sections and Elevations. Perspective, Shades and Shadows. Color — Simple Forms in Wash and Water Color. Sketching from Simple Forms in Still Life. Oil Color, Still Life; Sketching from Nature, Landscape and Life, in Oil, Water Color, and Black and White. Decoration of Various Forms, Porcelain, Pottery, etc.

Modeling — Simple Forms from Nature and Cast; Life. Application of Modeling to Various Forms of Decoration.

Lectures — History of Art, Architecture, Sculpture, and Painting. Prints. Application of Historic Ornament to Decoration. Daily, 1 to 4 p. m. Charles Ward Rhodes in charge.

EVENING CLASSES.

ANTIQUE, ELEMENTARY, AND ADVANCED.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Charles P. Davis and Edward M. Campbell, Instructors.

LIFE CLASS FROM THE NUDE.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Edmund H. Wuerpel, Instructor.

MODELING.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Robert P. Bringhurst, Instructor.

MECHANICAL DRAWING.

Geometrical Solids and Machine Details, etc. Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Laurence Ewald, Instructor.

ARCHITECTURAL DRAWING.

Plans, Elevations and Assembled Drawings, Perspective, Orthographic Projection, etc. Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Laurence Ewald, Instructor.

SATURDAY CLASSES.

JUVENILE CLASS.

Drawing from the Cast and Still Life. Sketching in Water Color, 9 to 12 a. m. Grace Hazard, Instructor.

CLASS IN ILLUSTRATION IN BLACK AND WHITE.

9 to 12 a. m. Charles A. Winter, Instructor.

CLASS IN ILLUSTRATION AND SKETCHING IN COLOR.

9 to 12 a. m. Edmund H. Wuerpel, Instructor.

SKETCHING IN WATER COLOR FOR TEACHERS.

9 to 12 a. m. Frederick L. Stoddard, Instructor.

OUT-OF-DOOR SKETCHING, LANDSCAPE AND FIGURE.

Upon recommendations from their teachers classes will be formed from among the advanced students during the month of May, daily, 9 a. m. to 4 p. m. Criticisms by the various Instructors.

NOTES ON COURSE OF INSTRUCTION.

I.

In the Antique Classes the method of instruction aims to teach the students to construct their drawings in a simple and correct manner. By the use of antique and modern forms as models from which to draw, the student is trained to perceive planes and values, light and shade, and is taught to economize time and effort when striving to produce an effect. By this means a foundation is laid for the further training of the draughtsman, modeler and painter in the more advanced classes.

II. STILL LIFE PAINTING CLASS.

Students begin the study of color in this class. They are first taught to observe and represent simple masses of form and color such as are found in fruits and vegetables. They are then given more difficult combinations, reflected lights and values such as are found in objects made in richly colored metals or other materials. They are also encouraged to make careful studies of drapery. The student may work in oil or water color, but whatever medium may be used, a truthfulness in form, color and value, simplicity of treatment, and close study of texture are required.

III. MODELING CLASS.

The work of the modeling class is of a threefold nature. First, there are a small number of students who study modeling with the intention of becoming sculptors; these

students have every opportunity to study from the living model and also receive instruction in anatomy. Second, a large proportion of students study modeling in order to gain a more accurate knowledge of form and proportion to aid them in their drawing and painting. These students work from the cast as well as from the living model, both nude and draped. The third class is composed largely of artisans working to acquire a knowledge of decorative form and ornament as used in architecture. To this end they work chiefly from casts of ornaments and figures from the antique and renaissance periods.

IV. HEAD AND PORTRAIT CLASS.

The purpose of study in the Head and Portrait Class is to accustom the student to grasp the essential character of the model.

Firm construction in drawing is insisted upon; also attention to the salient characteristics in form and color.

Students are taught to sacrifice unimportant and unnecessary details in form and in color, by this means gaining simplicity and strength in their work. Freedom of conception and execution is encouraged. The study of color values is insisted upon as more important than brush work and technique.

V. LIFE CLASS.

The last step in the academic training of the art student is the study from the living model. In the study from the nude, facility in construction, observation of character, correctness of proportions and values and a fearlessness of execution are essential. In painting from the

nude, simplicity of form, value and color, must follow good drawing. Method of execution is entirely individual whether in black and white or in color. The placing of the figure or object on canvas, with a view to composition, is demanded. In the advanced studies, the background is called for, and atmospheric relief expected.

VI. DRAWING FOR ILLUSTRATION.

The purpose of this class is to give the student a knowledge of drawing and pictorial composition and to apply this knowledge to the production of illustrations in various forms. At first the work is from casts, natural forms and drapery and later drawings are made from the living figure draped and nude. Constant effort is directed to the cultivation of a quickness of observation, the ability to draw correctly, the selection and arrangement of the material within the picture and an absolute simplicity of expression.

The various methods used are: THE POINT, the pencil, pen, and chalk — THE BRUSH, in gouache and wash; and COLOR, in oil, aquarelle, and pastel.

In black and white the student is urged to search for indicative rather than an absolute or real method of expression. Freedom of individual execution is encouraged.

In color the value and correctness of tone are considered above finish and execution.

In addition the student is impressed with the limitations imposed by the processes through which his drawing is transferred to the printed page. The aim is to familiarize the student with the requirements of these processes

as well as to develop artistic feeling and the technical capacity to express it.

VII. CLASS IN APPLIED ART.

CERAMIC DECORATION.

The aim of this class is to give the students a practical knowledge of painting on china, glass, etc. Particular attention is given to the development of originality in design, and simplicity in treatment. The student is first taught to make a careful and intelligent study of the shape to be decorated and the space to be covered. Special attention is given to the application of conventional ornament as well as realistic forms. All firing is done in the building of the school so that a thorough knowledge may be obtained in the use of the Kiln.

The students of this class will have the privilege of studying the large collections of decorated porcelain in the galleries of the Museum, comprehending examples of Doulton, Royal Worcester, Crown Derby, Danish, and Swedish ware. There are also collections of Old Chinese, Wedgewood and Rosenberg potteries.

VIII.

In accordance with the announcement made some time ago arrangements have been completed for the organization of classes in Design and Applied Art. Instruction will be given in the following subjects: Book Cover Designing, Drawing for Illustration, Decoration of Wood and Leather by means of Pyrography (wood burning) and the Application of Color, Stained Glass Designing,

Designing for Posters and Advertising Purposes, Decorative Composition, and Surface Decoration as applied to China, Embroidery and other surfaces.

Mr. Frederick L. Stoddard and Miss Henrietta Ord Jones have been added to the corps of instructors of the School. Classes in Design and Water Color will be under the supervision of Mr. Stoddard, and those in Ceramic Decoration will be under the instruction of Miss Jones.

All students of the School have access to the Library, which contains a large collection of books and plates referring to the above subjects.

By Applied Art is meant the practical carrying out of the design in the material for which the drawing has been made.

IX. MECHANICAL AND ARCHITECTURAL DRAWING.

Classes in these subjects are held only at night. Owing to the variety of knowledge and ability possessed by the student, the instruction is largely individual.

Mechanical Drawing includes the following branches:

I. Plane Geometrical Drawing, Orthographic Projection, Intersections of Solids and Development of Surfaces.

II. Drawing of Machine Details from measurement.

III. The making of Assembled Drawings.

IV. Tracing.

The purpose of instruction is to teach students how to make practical working drawings, and to read them with ease.

In the Architectural Drawing Class beginners are taught how to use their instruments, and to make neat and accurate line drawings. Instruction is given in the preparation of plans, elevations and working drawings for various kinds of buildings. Advanced students are taught Perspective Drawing, and the Drawing of ornamental forms for decorative purposes.

CLASS LECTURES.

Class Lectures upon the History of Painting, the Graphic Arts, Artistic Buildings and Localities, and other subjects relating to the History of Art Development from the earliest period to the present time, are given in the Lecture Hall every Tuesday afternoon from four to five o'clock, by a special corps of lecturers. The character and scope of these lectures may be judged from the following synopsis of the course for 1900-1901.

All lectures are fully illustrated by stereopticon views and examples from the Museum Collections.

Old English Churches (four lectures)	<i>Prof. M. S. Snow.</i>
Greek Sculpture and its Relation to the Renaissance and Modern Art.	<i>Marie R. Garesché.</i>
The Art of Spain (four lectures).	<i>Edmund H. Wuerpel.</i>
Mornings in Paris (six lectures).	<i>Elise J. Blattner.</i>
Japanese Painting	<i>A. M. G. Pattison.</i>
Spanish Architecture (two lectures)	<i>Prof. Halsey C. Ives.</i>
A Decade of American Mural Painting.	<i>Charles Ward Rhodes.</i>
Perspective (twelve lectures).	<i>Charles Ward Rhodes.</i>
Renaissance Painting in Italy (twelve lectures).	<i>A. M. More.</i>

The Awards in the School of Fine Arts for the year 1899-1900, were as follows:—

June 12th, 1900.

PROF. HALSEY C. IVES,
Director.

DEAR SIR: The Jury of Awards after a careful examination of the works submitted in competition for Medals and Mentions for the year 1899-1900 has the honor to recommend the following:—

ANTIQUES CLASS.

- Miss Rhoda Chase, Bronze Medal.
Miss Lyna Chase, Hon. Mention.
Mr. Clarence Cadwallader, Hon. Mention.

STILL LIFE PAINTING CLASS.

- Miss Cornelison, Silver Medal.
Miss Lyna Chase, Bronze Medal.
Miss Elizabeth Marshall, Hon. Mention.
Miss Laura Franklin, Hon. Mention.

PORTRAIT CLASS IN BLACK AND WHITE.

- Miss Alice Herthel, Silver Medal.
Mr. William Young, Bronze Medal.
Mr. Frank Sayers, Hon. Mention.

PORTRAIT CLASS IN COLOR.

- Miss Agnes Richmond, Bronze Medal.
Miss Ethel Franklin, Hon. Mention.

LIFE CLASS IN BLACK AND WHITE.

- Miss Grace Hazard, Silver Medal.
Mr. William Young, Silver Medal.
Miss Isabel Brownlee, Bronze Medal.
Miss Agnes Richmond, Hon. Mention.
Miss Ethel Franklin, Hon. Mention.

LIFE CLASS IN COLOR.

- Miss Evelyn Fitch, Hon. Mention.
Mr. Edward Witter, Hon. Mention.

COMPOSITION CLASS.

- Mr. Edward Witter, Silver Medal.
Miss Agnes Richmond, Hon. Mention.
Miss Ethel Franklin, Hon. Mention.

SATURDAY SKETCH CLASS IN BLACK AND WHITE.

- Miss Evelyn Fitch, Book Prize.
Mr. William Young, Hon. Mention.
Mr. Edward Witter, Hon. Mention.

SATURDAY SKETCH CLASS IN COLOR.

- Miss Agnes Richmond, Silver Medal.
Miss Evelyn Fitch, Bronze Medal.
Mr. Edward Witter, Hon. Mention.

MODELING, ANTIQUE.

- Miss Virginia Hazard, Bronze Medal.
Mr. John Stuart, Hon. Mention.

CLASS IN DESIGN.

- Miss Rhoda Chase, Silver Medal.
Miss Grace Hazard, Bronze Medal.
Miss Evelyn Fitch, Hon. Mention.

CHINA PAINTING CLASS.

- Miss Alice Kendall, Silver Medal.
Miss Modena Willard, Bronze Medal.
Miss Patsey Cornelison, Hon. Mention.

We also especially recommend the following students for most excellent examples of work: Miss Alice Fullerton in the Still Life Painting Class, and Miss Emma Bell in the Class in Design. We likewise take this occasion to heartily commend the work done in the various classes of the School.

Respectfully,

HARVEY LEWIS JONES,

STEPHEN B. LAWRENCE,

M. P. MCARDLE,

Jury.

The Wayman Crow Medal, awarded for the most satisfactory progress in all classes, is unanimously voted by the Instructors to Miss Grace Hazard for the year 1899-1900.

THE ST. LOUIS MUSEUM OF FINE ARTS.

The Museum of Fine Arts has a valuable permanent collection of statuary, paintings, pottery, carvings, etc., which affords the public, as well as students, an indispensable aid to the study of art; and in order that opportunity may be given for studying the methods of the different schools of painting and the works of celebrated artists, arrangements have been made for a series of fine exhibitions of oil and water color paintings, architectural drawings and engravings.

Any one desiring to become a member of the Museum of Fine Arts may do so by the annual payment of \$10.00. This membership entitles him, with his family and non-resident guests, to the privilege of visiting the Museum at all times when open to the public, and to all lectures, receptions, and special exhibitions given under the auspices of the Board of Control.

SCHOOL OF FINE ARTS.

Students enrolled from date of issue of last catalogue, February 16, 1900, to February 19, 1901.

FULL TIME STUDENTS.

NAMES.	RESIDENCE.
Alexander, Frances	3147 Laclede av.
Antisdel, Gladys Lindell	5848 Bartmer av.
Arnold, J. Bessie	3051 Sheridan av.
Bader, Alphonse	2931 Laclede av.
Baker, Clarissa Lorena	Marlin, Tex.
Bard, Jessie M.	2343 Russell av.
Bay, Lillian	1703 Good av.
Becroft, Cecil	4656 Page av.
Behrens, Ludwig	Aubert & Field avs.
Bell, Emma	Walnut Ridge, Tenn.
Benson, Beatrice	West Plains, Mo.
Berry, Eugenia	Old Orchard, Mo.
Blachard, Lulu	Omaha, Ill.
Blackman, Barbara Adelaide	5843 Bartmer av.
Bribach, Caroline	521 Loughborough av.
Brolaski, Marie E	5714 Chamberlain av.
Brownlee, Isabel Doan	4210 Westminster pl.
Brunner, Hermine	622 Bates st.
Buchholz, John H.	3222 Chouteau av.
Cadwallader, Clarence	3128 Morgan st.
Carlisle, Elizabeth Beach	1818 Bacon st.
Carpenter, Fred Green	4301 Belle pl.
Carroll, Anne Belle	4215 Page boul.
Chamberlain, Mary	6218 Wagner av.
Chase, Lyna	Hillside, Mo.
Chase, Rhoda Campbell	3334 Washington av.
Cherry, Katheryn E.	2343 Russell av.
Cogswell, Katheryn Diggs	4211 Page boul.

NAMES.	RESIDENCE.
Cornelison, Patsey McWilliams	4937 Terry av.
Corwin, Cora Bridges	5572 Clemens av.
Culver, Ida Lucille	3501 Morgan st.
Davidson, Mary Anne	Marianville, Mo.
Davis, Emma	Alton, Ill.
Dooris, John Andrews	623 Leffingwell av.
Drake, Nannie	Warsaw, Mo.
Eichbaum, Mary Elizabeth	5104 Shaw av.
Franke, Charles A.	E. St. Louis.
Franklin, Laura I. P.	Kirkwood, Mo.
Fry, Edwin	3133 Pine st.
Fullerton, Alice Verena	Forest Pk. University.
Gibney, Alice	5245 Fairmount av.
Gimbel, Hortense	741 Bayard av.
Gray, Fred	4209 Cleveland av.
Halleck, Paul Platt	Kansas City, Mo.
Hanenkamp, Lily G.	4367 Washington boul.
Hartog, Margaret E.	5143 Wells av.
Hazard, Grace	Kirkwood, Mo.
Hazard, Virginia Lorraine	Webster Groves, Mo.
Heltzel, Ida G.	3119 Franklin av.
Herthel, Alice T.	1209 Dolman st.
Higgins, May Jerome	Norwalk, Conn.
Hill, Raymond	Morissa, Ill.
Hoehn, Veronica Alma	St. Charles, Mo.
Horn, Frank Oscar	E. St. Louis, Ill.
Houck, Tula Vivian	1742 Waverly pl.
Hoyle, Mary Catherine	4483 Laclede av.
Jameson, Marie Louise	5 Benton pl.
Johns, Charles Frederick	3958 Cook av.
Jordan, Sue Goodwyn	4589 W. Belle terrace.
Katz, Alma	5182 Cabanne av.
Kendall, Alice Rosamond	Kirkwood, Mo.
Ketchum, Daisy	732 Aubert av.
Knight, Augusta H.	Clifton Heights, Mo.

NAMES.	RESIDENCE.
Leonard, Robb Bentley	4350 Maryland av.
Leschen, Arthur Adolf	3616 Palm st.
Lewis, Caroline Virginia	Bowling Green, Mo.
Lipscomb, Lucy E.	4206 West Belle pl.
Lodwick, Agnes Isabel	Ferguson, Mo.
Long, Eloise Compton	4882 Maryland av.
Longley, Nimrod	3133 Nebraska av.
Louthan, Ella E.	5356 Page av.
Manius, Albinus	2937 Dayton st.
Martyn, Marguerite E.	Springfield, Mo.
Massey, Grace	3513 Morgan st.
Massie, Sophie McDowell	3500 Morgan st.
Mather, Louise	Atchinson, Kan.
McIvor, Mary	Hoxie, Kan.
McKillop, William	3531 Olive st.
McLain, Luella Crawford	3526 Lindell av.
Meir, William	4311 N. 21st st.
Meyer, Albert Conrad	4375 Chouteau av.
Mier, Estelle Katherine	7111 Michigan av.
Mitchell, Arthur	2214 Hickory st.
Montijo, Laura	Mexico.
Morse, Edwina	Chester, Ill.
Murray, Bessie	718 Leonard av.
O'Brien, Helen Frances	1605 Chambers st.
Overstolz, Katherine Phillipine	3439 Washington av.
Paddock, Lucille	3635 Washington boul.
Peters, Katheryn	5271 Page av.
Prince, Elizabeth Duvall	3846 Lindell av.
Rainwater, Maud Anna	Eureka Springs, Ark.
Ramsey, Jane Margaret	5475 Cabanne av.
Richmond, Agnes Millen	1727 California av.
Roush, Philip P.	Hotel Beers.
Scheel, Minnie	Belleville, Ill.
Schlapp, Fannie	Fort Madison, Ia.
Schnalder, Stella	1423 Hickory st.

NAMES.	RESIDENCE.
Scheutte, Henry Carl	East St. Louis.
Scott, Mary Semple	3516 Morgan st.
Schousby, Axel H.	LaCrosse, Wis.
Spalding, Mary L.	Syracuse, N. Y.
Stirling, Mary Polk	Helena, Ark.
Stuart, John Guy	Lincoln Trust bldg.
Sullivan, Nellie	4330 Cook av.
Swope, Julia	3530 Olive st.
Taake, Daisy	1334 King's highway.
Teuscher, Fannie	2316 S. 18th st.
Tolck, Grace	1421 Carr st.
Tutt, Amy	Kirkwood, Mo.
Vortriede, Tillie L.	2019 Sidney st.
Wagner, Pearl Anna	Ava, Ill.
Wait, Sibelle L.	Greenville, Ill.
Wangelin, Josie Kircher	Belleville, Ill.
Watkins, Elua F	4482A Delmar boul.
Wilkerson, Carrie Lee	3914 Lindell boul.
Willard, Modena	3333 Washington av.
Wilson, Sarah Dean	Pinckneyville, Ill.
Wood, Caroline Sumner	5327 Waterman av.
 Students working full time	129
Students working part time	89
Students working in night classes .	113
 Total number enrolled	<hr/> 381

ST. LOUIS LAW SCHOOL.

(LAW DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR 1900-1901.

LAW SCHOOL opens Thursday, September 27, 1900.

HOLIDAY, THANKSGIVING DAY. Thursday, November 29, 1900.

VACATION, December 24, 1900, to January 1, 1901, inclusive.

HOLIDAY, WASHINGTON'S BIRTHDAY, Friday, February 22, 1901.

UNIVERSITY HOLIDAY, Friday, May 10, 1901.

COMMENCEMENT, Thursday evening, June 20, 1901.

VACATION, from June 21, to September 26, 1901.

EXAMINATIONS FOR ENTRANCE TO SENIOR CLASS, Tuesday, September 24, 1901.

LAW SCHOOL opens Thursday, September 26, 1901.

HOLIDAY, THANKSGIVING DAY, Thursday, November 28, 1901.

VACATION, from December 24, 1901, to January 1, 1902, inclusive.

FACULTY.

WINFIELD S. CHAPLIN,LL.D.,
Chancellor of Washington University.

WILLIAM S. CURTIS,LL.B.,
Dean of the Law Faculty.

AMOS M. THAYER,LL.D. (U. S. Circuit Judge),
Professor, Real Property Law and Equity.

CHARLES NAGEL,LL.B.,
Professor, Law of Contracts and Commercial Law.

GUSTAVUS A. FINKELNBURG,
Lecturer, International Law.

EDWARD C. ELIOT,LL.B.,
Lecturer, Sales and Bailments.

PENDLETON T. BRYAN,LL.B.,
Lecturer, Torts and Negligence.

CHARLES P. JOHNSON,A.M.,
Lecturer, Criminal Law.

FREDERICK N. JUDSON,LL.D.,
Lecturer, Comparative Jurisprudence.

ISAAC H. LIONBERGER,A.M.,
Lecturer, Corporations, Statutes of Limitations and Frauds.

LEE SALE,LL.B.,
Lecturer, Partnership.

PAUL F. COSTE,LL.B.,
Lecturer, Bills and Notes.

C. O. BISHOP,LL.B.,
Lecturer, Criminal Law.

EDWARD S. ROBERT,LL.B.,
Lecturer, Evidence.

JAMES P. MAGINN,LL.B.,
Lecturer, Administration.

EBEN RICHARDS,LL.B.,
Lecturer, Damages.

HENRY T. KENT,LL.B.,
Lecturer, Jurisdiction of Federal Courts.

ADVISORY AND EXAMINING BOARD.

- LEROY B. VALLIANT**, Justice of the Supreme Court of Missouri.
- WARWICK HOUGH**, late Justice of the Supreme Court of Missouri.
- SHEPARD BARCLAY**, late Justice of the Supreme Court of Missouri.
- ELMER B. ADAMS**, United States District Judge.
- SAMUEL TREAT, LL.D.**, United States District Judge (retired).
- HENRY S. PRIEST**, late United States District Judge.
- WILLIAM H. BIGGS**, late Judge of St. Louis Court of Appeals.
- HENRY W. BOND**, Judge of St. Louis Court of Appeals.
- C. C. BLAND**, Judge of St. Louis Court of Appeals.
- R. A. BAKEWELL**, late Judge of St. Louis Court of Appeals.
- SEYMOUR D. THOMPSON**, late Judge of St. Louis Court of Appeals.
- JACOB KLEIN**, late Judge of St. Louis Circuit Court.
- JAMES E. WITHROW**, late Judge of St. Louis Circuit Court.
- DANIEL D. FISHER**, Judge of St. Louis Circuit Court.
- HORATIO D. WOOD**, Judge of St. Louis Circuit Court.
- DANIEL DILLON**, late Judge of St. Louis Circuit Court.
- WILBUR F. BOYLE**, late Judge of St. Louis Circuit Court.
- GEORGE W. LUBKE**, late Judge of St. Louis Circuit Court.
- JAMES A. SEDDON**, late Judge of St. Louis Circuit Court.
- WALTER B. DOUGLASS**, Judge of St. Louis Circuit Court.

JOHN W. NOBLE,	FRED A. WISLIZENUS,
EDWARD C. KEHR,	JOHN A. HARRISON,
ARBA N. CRANE,	WELLS H. BLODGETT,
JAMES TAUSSIG,	E T. ALLEN,
JOHN W. DRYDEN,	JOHN F. LEE,
EDW. CUNNINGHAM, JR.,	JOHN D. DAVIS,
GEORGE H. SHIELDS,	JAMES L. BLAIR,
CHAS. CLAFLIN ALLEN,	WILLIAM B. HOMER,
JOHN M. HOLMES,	FRÉD'K W. LEHMANN,
LEVERETT BELL,	THOMAS K. SKINKER,
EDWARD T. FARISH,	ROBERT F. WALKER,
EVERETT W. PATTISON,	WALTER D. COLES,
JOHN E. McKEIGHAN,	JAMES HAGERMAN.
SILAS B. JONES,	JESSE A. McDONALD,
TRUMAN A. POST,	ALBERT ARNSTEIN,
HUGO MUENCH,	HARVEY L. CHRISTIE,
ELENEIOUS SMITH,	WILLIAM E. FISSE,
JAMES P. DAWSON,	J. HUGO GRIMM,
DAVID GOLDSMITH,	DANIEL N. KIRBY,

Of the St. Louis Bar.

COMMITTEES OF EXAMINATION.

FOR THE YEAR 1900.

For the Examination of Candidates for Graduation.

ALBERT ARNSTEIN,
HARVEY L. CHRISTIE,
WILLIAM E. FISSE,
J. HUGO GRIMM,
DANIEL N. KIRBY,
JOHN F. LEE,
HORATIO D. WOOD.

For the Award of a Prize of Fifty Dollars for the best Graduation Thesis.

JOSEPH G. HOLLIDAY,
CHARLES C. COLLINS,
VALENTINE MOTT PORTER.

HONORS, 1900.

PRIZE ESSAYIST.

TYRRELL WILLIAMS.

The Juniors who passed all the Junior examinations with an average grade of eighty per cent or over, and are therefore entitled to enter the Senior class *cum laude*, are: —

- TRUMAN POST YOUNG, St. Louis, 89.72.
WILLIAM R. DONALDSON, JR., St. Louis, 88.
JESSE P. CLELAND, Omaha, Neb., 86.93.
ROBERT M. WILSON, St. Louis, 86.82.
FRANK B. COLEMAN, Forestell, Mo., 86.39.
EARL McC. PIRKEY, Canton, Mo., 86.01.
WILLIAM CARPENTER, Waverly, Ill., 85.20.
BRUNO H. DIEHL, Centralia, Ill., 84.41.
MAX W. OLIVER, Wichita, Kans., 83.60.
EUGENE W. MILLER, Belleville, Ill., 83.51.
HAYDON O. RICHARDS, Jerseyville, Ill., 83.16.
ROBERT L. NEAL, Knoxville, Tenn., 82.91.
GEORGE G. ZENOR, Patterson, La., 81.99.
JULIUS C. GOEBEL, St. Louis, 81.10.
ZENAS K. CARSON, Sparta, Ill., 80.88.
WILLIAM R. SCULLIN, St. Louis, 80.70.
SAMUEL W. FORDYCE, JR., St. Louis, 80.26.

SENIOR CLASS.

CITY RESIDENCE.

Altheimer, Beno, Pine Bluff, Ark.	. . . . .	4224 Westminster pl.
Barnes, Gerry Hoyt, St. Louis	. . . . .	3320 Morgan st.
Becker, William Dee (A.B., 1899, Harvard University), St. Louis	. . . . .	1829 Hickory st.
Brouillette, Ernest M. (A.B., 1899, Hastings College), Hastings, Neb.	. . . . .	1712 Locust st.
Brown, Addison, St. Louis	. . . . .	1706 Locust st.
Brown, Frank Jonathan, Bloomfield, Ky.	. . . . .	1424 Olive st.
Brownlee, George Burr, St. Louis	. . . . .	4210 Westminster pl.
Carpenter, Will, Waverly, Ill.	. . . . .	3030 Clark av.
Carson, Zenas Keers, Sparta, Ill.	. . . . .	2212 Locust st.
Chopin, Felix Andrew, St. Louis	. . . . .	3317 Morgan st.
Cleland, Jesse, Purinton (A.B., 1899, Univ. of Neb.), Omaha, Neb.	. . . . .	3748 Olive st.
Coleman, Frank B., Forestell, Mo.	. . . . .	3748 Olive st.
Connett, William Carroll, St. Joseph, Mo.	. . . . .	5423 Bartmer pl.
Currie, Dwight Dent, St. Louis	. . . . .	5173 Maple av.
Diehl, Bruno Huxley, Centralia, Ill.	. . . . .	2809 Washington av.
Donaldson, William Rhind, Jr. (A.B., 1898, Harvard Univ.), St. Louis	. . . . .	4600 Lindell boul.
Donovan, Irwin, St. Louis	. . . . .	3037 Pine st.
Fairbank, Arthur Boyce (Ph.B., 1896, Illinois College), Jacksonville, Ill.	. . . . .	3414 Lucas av.
Fechte, John L, Venice, Ill.	. . . . .
Fisher, John I., St. Louis	. . . . .	1464 S. Grand av.
Fordyce, Samuel Wesley, Jr. (A.B., 1898, Harvard Univ.), St. Louis	. . . . .	3634 Washington av.
Galt, Thomas F. (B.S., 1899, Princeton Univ.), St. Louis	. . . . .	63 Vandeventer pl.
Goebel, Julius Christian (A.B., 1900, Washington Univ.), St. Louis	. . . . .	1215 S. 14th st.

CITY RESIDENCE.

Gresham, Sherman Tecumseh, Cape Girardeau, Mo.	2220a S. 18th st.
Hall, Fred Silvey (A.B., 1898, Univ. of Illinois), Arcola, Ill.	809 Clarendon av.
Hammer, Otto Walter, St. Louis	2007 Sidney st.
Hannion, John William, St. Louis	3828 Cook av.
Haverstick, Andrew Jackson, Victoria, Mo.	43d and Laclede av.
Hilton, Warren (A.B., 1895, Washington Univ.), St. Louis	2208 Park av.
Janis, Paul V.	Ferguson, Mo.
Koenig, Eugene, St. Louis	2945 Milton av.
Landauer, Isidore, St. Louis	4128 Finney av.
Leonard, Loyal Lovejoy (B.S., 1896, Trinity College), St. Louis	3731 Delmar av.
Marks, Charles E., Salt Lake City, Utah	1712 Locust st.
Mayhew, Drewry Sherman, Pierce City, Mo.	1424 Olive st.
McNamee, William, St. Louis	6633 Virginia av.
Meriwether, Edward G., Alton, Ill.	
Miller, Eugene Walter (B.S., 1896, No. Ind. Normal School), Belleville, Ill.	
Monteith, Edward Mason, Newport, Ark.	4132 Russell av.
Neal, Robert Lincoln (A.B., 1888, Natl. Normal Univ.), Knoxville, Tenn.	3748 Olive st.
O'Hallaron, Joseph William, St. Louis	1811 Ohio av.
Oliver, Max William (A.B., 1899, Harvard Univ.), Wichita, Kans.	3720 Pine st.
Pirkey, Earl McC. (A.B., 1892, Christian Univ.), Canton, Mo.	1417 Locust st.
Rendlen, Charles E. (A.B., 1899, William Jewell College), Hannibal, Mo.	2634 Locust st.
Richards, Hayden O., Jerseyville, Ill.	2809 Locust st.
Riley, Ambrose Joseph (A.B., 1898, Georgetown Univ.), St. Louis	1501 S. Grand av.

CITY RESIDENCE.

- Scullin, William Richard, St. Louis . . . 5024 Westminster pl.
 Shanks, Mack R., Marshfield, Mo. . . . 2612 Locust st.
 Shotwell, Clarence Lee, Ellisville, Mo. . . 4040a Page av.
 Sidener, Charles Howard (Ph.B., 1898,
 Wabash College), Crawfordsville, Ind. 3207 Washington av.
 Staed, Mark Aloysius (A.M., 1898, George-
 town Univ.), St. Louis 3532 Page av.
 Thomas, William Nelson, Brownsville,
 Tenn. 5117 Westminster pl.
 Troll, Harry F., St. Louis 3624 Shaw av.
 Wesseler, William Julius (A.B., 1900,
 Washington Univ.), St. Louis 2819 S. 13th st.
 Wilson, Robert Monroe, St. Louis . . . 3865 Delmar av.
 Young, Truman Post (A.B., 1899, Yale
 Univ.), St. Louis 3041 Lucas av.
 Zahn, Arthur F., St. Louis 1958 Sidney st.
 Zenor, George Gildea (B.S., 1899, Cen-
 tenary College), Patterson, La. 2113 Locust st.

JUNIOR CLASS.

- Aubuchon, John Gordon, Grenola, Kans. 1706 Locust st.
 Bassett, Arthur (A.B., 1900, Univ. of
 Missouri), Paris, Mo.
 Behrens, Aaron J. H., Buffalo, Mo. . . . 2242 Adams st.
 Boehmen, Louis L., St. Louis 1643 Texas av.
 Buckley, Barney E. (A.M., 1891, Heidel-
 burg Univ., Ohio), St. Louis 6139 Gambleton pl.
 Buder, Rudolph F., St. Louis 3321 Shenandoah av.
 Burgess, Arthur P., St. Louis 2933 Harper st.
 Burgess, Samuel A. (A.B., 1900, Wash-
 ington Univ.), St. Louis 2933 Harper st.
 Carney, John M., St. Louis 3747 Finney av.
 Chamier, Arthur B. (A.B., 1895, William
 Jewell College), Moberly, Mo. . . . 1409 Pendleton av.
 Coleman, John M., St. Louis 1110 N. Channing av.

	CITY RESIDENCE.
Cornelius, Stephen, St. Louis	5045 Vernon av.
Coyle, Joseph F., St. Louis	2815 Franklin av.
Crider, Edgar L., Maitland, Mo.	721 N. Garrison av.
Dlehm, Walter, St. Louis	1834 Kennett pl.
Doran, Rex S., Harrisonville, Mo.	1825 S. 18th st.
Dougherty, George (A.B., 1900, Christian Brothers College), St. Louis	1420 Pendleton av.
Droste, Henry, St. Louis	1828 N. Jefferson av.
Eilers, Roy M. (A.B., 1900, Washington Univ.), St. Louis	1616 King's Highway.
Ellerbe, Christopher P., Jr. (A.B., 1900, Yale Univ.), Ferguson, Mo.	
Falkenhainer, Victor H., St. Louis	3508 Missouri av.
Feuerbacher, Max W., St. Louis	1126 Sidney st.
Geraghty, Francis X., St. Louis	2805 Cass av.
Ghiselin, Horace, Webster Groves, Mo.	
Gorin, Henry J., St. Louis	4200 W. Belle pl.
Hiemenz, Frank K., St. Louis	3520 Magnolia av.
Hinckley, Theodore C., St. Louis	3010 Locust st.
Hughes, Samuel W., Montgomery City, Mo.	2945 Dayton st.
Igoe, William L., St. Louis	4427 Kossuth av.
Kelley, Robert, Warrensburg, Mo.	2700 Locust st.
Kinkel, Charles A., St. Louis	751 Bayard av.
Koenig, C. William (B.S., 1893, Buchtel College), St. Louis	2710 S. 13th st.
Loewenstein, Arnold, St. Louis	2702 Henrietta st.
Luster, Lewis, West Plains, Mo.	3803 Finney av.
Mann, Charles C., St. Louis	3944 Shaw av.
Marsh, Henry C. (A.B., 1900, William Jewell College), Fredericktown, Mo.	2634 Locust st.
McDonald, Alex. A. (A.B., 1900, Illinois College), Jacksonville, Ill.	3414 Lucas av.
Moore, William D., St. Louis	1418 Wittenberg av.
Neun, Walter J. G., St. Louis	3652 Blaine av.

CITY RESIDENCE.

Pierson, Ralph, St. Louis	4415 Delmar boul.
Powell, Robert C., St. Charles, Mo.	
Price, Charles S., Plattsburg, Mo.	1227 Olive st.
Raithel, Edward A., St. Louis	1446 Hogan st.
Rassieur, Leo G., St. Louis	2335 Whittemore pl.
Rice-Wray, Theron C., St. Louis	5589 Cabanne av.
Riegel, Jerome A., Moberly, Mo.	2908 Gamble st.
Riley, Henry C., Jr., New Madrid, Mo.	3854 Delmar av.
Ring, Charles N., East St. Louis	
Rodgers, James R., St. Louis	3706 Pine st.
Schuchman, Alois, St. Louis	1525 Missouri av.
Shull, Charles G. (B.S., 1897, William Jewell College), Odessa, Mo.	2634 Locust st.
Smith, Jas. W. (M.D., 1890, Mo. Med. College), St. Louis	{ Mermod & Jaccard bldg.
Spencer, Curran, Joplin, Mo.	3810 Cook av.
Stelner, N., St. Louis	{ 523 Mermod & Jaccard bldg.
Summerville, Robert O., Chillicothe, Mo.	
Sylvester, Elmer H., St. Louis	4147 McPherson av.
Tubbs, Arthur J., St. Louis	6104 Ridge av.
Ungar, Joseph, St. Louis	2040 Victor st.
Unger, William C. (A.M., 1894, St. Francis Solanus College), St. Louis	1353 N. Garrison av.
Wagner, George W., Jefferson City, Mo.	
White, Stone W., St. Louis	3689 Pine st.
Whitehill, Hibbard C., St. Louis	5016 Morgan st.
Whitson, Alonzo C., Buffalo, Mo.	6131 Simpson av.
Wilson, Alfred C., St. Louis	5900 Cates av.
Wilson, Ford La B., St. Louis	5900 Cates av.
Winchell, George H., Washington, Ind.	2709 Washington av.
Seniors	58
Juniors	66
Total, 124	

GENERAL INFORMATION.

The St. Louis Law School was established as a department of Washington University in 1867. A class was graduated in 1869, and one class each year since. It occupies exclusively a commodious building, No. 1417 Locust Street, containing all necessary lecture rooms, offices, library rooms, etc. The library contains more than 8,000 volumes, devoted solely to the uses of the school. By the courtesy of The St. Louis Law Library Association, the students also have access on Saturday to its library. The special endowment of the Law School now amounts to \$77,000.

The method of instruction is rather by text-book than by collections of cases, and very little is done in the way of mere lectures. The daily exercises of the school are really recitations. The following figures give the enrollment during the last six years: —

	SENIORS.	JUNIORS.	GRADUATED.
1894-5	37	94	32
1895-6	54	95	40
1896-7	58	101	40
1897-8	59	85	50
1898-9	61	81	48
1899-1900	47	94	35
1900-1901	58	67	—

ADMISSION.

Applicants for admission to the school will be expected to furnish satisfactory evidence of at least a good English

education. The diploma of any reputable college, academy or high school will be received as evidence of the latter; or the applicant may pass an examination to test his ability to read law-books intelligently.

No fixed rule as to the age of applicants for admission is enforced, but the Faculty reserve the right to reject any student not old enough to begin the study of law with advantage; and no student will receive the degree of Bachelor of Laws before the completion of his twenty-first year.

In the case of candidates for the Senior Class who have previously been members of the Junior Class, the examinations of that year will suffice, if creditably passed; and those who failed to pass, may, upon further study, apply again for examination in September, provided their record is not too unsatisfactory. The regular examinations for this purpose will begin on Tuesday, September 24th, 1901, at 9 a. m. at the Law School, 1417 Locust Street.

New applicants for admission as Seniors will be examined at the same time, and upon the following subjects: Commercial Paper, Sales, Bailments, Agency, Torts, Criminal Law, and Common Law or Code Pleading.

Admission to the Junior Class may be had at any time during the year; to the Senior Class, after the examination in September, it will be granted only upon special examination, at a time fixed by the Dean upon application, not later than the first week of school after the Christmas holidays; and no person will be admitted a member of the Senior Class as a candidate for a degree after that time; nor at any time upon any certificate of attainments, or previous study or attendance elsewhere.

COURSE OF STUDY.

The course for the degree of LL.B. is two years of thirty-six weeks each, exclusive of holidays. The recitations are held at 8:45 to 9:45 a.m., and at 5 to 6 p.m., with a few additional recitations at 4 p.m. Moot Court on Saturday mornings. Written examinations are at 2 p.m., at intervals throughout the year upon the completion of each topic.

JUNIOR CLASS.

ELEMENTARY LAW. *Robinson and Blackstone.* Forty recitations. Curtis.

CONTRACTS. *Bishop.* } Sixty-two recitations. Nagel.
AGENCY. *Mechem.* }

TORTS. *Cooley.* } Sixty-two recitations.

NEGLIGENCE. *Whitaker's Smith.* } Bryan.

SALES. *Benjamin.* } Sixty-two recitations. Eliot.

BAILMENTS. *Hale.* }

BILLS AND NOTES. *Tiedeman.* Twenty recitations. Coste.

CRIMINAL LAW. *May.* Twenty recitations. Bishop. Johnson.

PLEADING. { Common Law. *McKelrey.* } Forty recitations.
Code. *Bryant.* } Curtis.

DAMAGES. *Sedgwick.* Fifteen recitations. Richards.

SENIOR CLASS.

REAL PROPERTY. *Tiedeman.* } Eighty recitations. Thayer.
EQUITY. *Bispham.* }

CORPORATIONS. *Elliott.* } Forty-one recita-

STATUTES OF FRAUDS AND LIMITATIONS. } tions. Lionberger.

DOMESTIC RELATIONS. *Schouler.* } Fifty recitations. Curtis.

CONSTITUTIONAL LAW. *Cooley.* }

EVIDENCE. *Greenleaf.* Thirty recitations. Robert.

ADMINISTRATION. *Abbott.* Twenty recitations. Maginn.

JURISDICTION OF FEDERAL COURTS. Ten recitations. Kent.
INTERNATIONAL LAW. Fifteen recitations. Finkelnburg.
PARTNERSHIP. *Mechem*. Twenty recitations. Sale.
COMPARATIVE JURISPRUDENCE. Fifteen recitations. Judson.
MOOT COURT. Once a week for both classes.

The above courses are subject to slight changes from year to year.

GRADUATION.

Members of the Junior Class, in order to pass into the Senior Class, must attain an average of 65 per cent in the examinations of the Junior Year. Members of the Senior Class in order to be admitted to the final examination for the degree of LL.B., must attain an average of 65 per cent in all the examinations of both years. The above examinations are all written and are conducted by the Faculty.

The examination for the degree of LL.B., is prescribed and conducted by a committee of the Advisory and Examining Board. This examination is also written and occupies about one week. The Board is composed of leading members of the judiciary and bar of St. Louis, selected by the Directors of the University. Each senior is required to present, on or before May 15, an original thesis upon a legal topic selected by the Faculty. The subject of the thesis for the class of 1900 was, "The Mental Attitude of Defendants, as an Element of Civil Causes of Action."

The degree of LL.B., conferred by the University, entitles the holder to admission to the Bar of Missouri without further examination.

MOOT-COURT.

A Moot-Court is held weekly throughout seven months of the year. It is conducted, as nearly as possible, with the forms of an ordinary court of justice, and students are expected to draw pleadings in the cases assigned to them, and to conduct them through all the stages of a legal or equitable suit before trying the issue in the Moot-Court. Members of the Senior Class may be appointed to sit as Associate Justices, and required to write opinions. The cases will be selected to illustrate the subjects studied by the classes and will be made, so far as possible, means of instruction, not only in practice, but in the doctrines of the law. Both classes will be assigned to argue cases in these courts. The Moot-Court Record is a weekly, published by the School, containing the Statements of Facts, Briefs and Opinions.

FEES AND EXPENSES.

The annual fee for attendance in either class is \$80, payable in advance. There are no extra charges of any kind. No reduction will be made from the term fee, nor any part of it returned for absence from any cause.

Good board and lodging can readily be obtained in the city at from \$4 to \$5 per week. The expenses may be lessened to students rooming together. The average price paid for board with rooms during the last two or

three years by students in good houses near the Law School is believed to have been not over \$20 per month, while some have obtained it as low as \$15.

Those who find it necessary to earn a part of their living in other pursuits while taking the course can do so by lengthening that course from two to three years, taking a proportionate part of the class-work (to be designated by the Faculty according to circumstances of each case) in each year. Every facility will be extended to them for such an arrangement; and the charge for tuition in such cases will only be for two years; but no other diminution of the daily requirements of attendance and study will be sanctioned, except in the case of special students not candidates for a degree.

The expense of text-books for the entire course, if purchased new and of the latest editions, is about \$75. This sum may be materially reduced by the purchase of second-hand books which may be usually had in considerable variety. All the books used in recitation may be found in the library and can be studied there free of charge, but not taken from the room.

SCHOLARSHIPS AND PRIZES.

In pursuance of the terms of a donation of \$6,000 heretofore made to the University for the benefit of the Law School, *six free scholarships* are established in this department; also an annual prize of \$50 in money for the best thesis upon some legal topic, to be publicly awarded at Commencement. Competition for this prize is confined

to the regular members of the graduating class in each year under regulations duly announced.

Applicants for *free scholarships* should apply in person or by letter to the Dean, on or before the fifteenth day of September, furnishing written testimonials of at least two responsible persons, that the pecuniary circumstances of the applicant are such as to make him deserving of this assistance, that he is of good character and standing, and that he has received a good English education at least. Other things being equal, preference will be shown to candidates who have received a collegiate education, and especially to those who have done this wholly or partially by their own efforts. Applicants not personally known to any of the Faculty will do well to state fully and precisely their age, place of birth and residence, present occupation, education (both general and legal), and any other circumstances that may be of weight in making a selection. Such communications will be held strictly confidential.

As the applicants for *free scholarships* are usually far in excess of the number that can be given, no student will hereafter have the benefit of such scholarship for more than one year. As far as practicable, the scholarships will be equally divided between the two classes — depending upon the number and the success of the candidates for scholarship in either class.

Two members of each class have an opportunity to earn their tuition and a small salary in addition, by service as librarians, and in other capacities connected with the work of the School. Applications for such positions

must be made in person, on or before the fifteenth day of September.

For further information, inquiries may be addressed to Wm. S. CURTIS, Law School Building, 1417 Locust Street, St. Louis, Mo., or the Secretary of Washington University.

MEDICAL DEPARTMENT
OF
WASHINGTON UNIVERSITY.

CALENDAR.

1900-1901.

SESSION OPENS Thursday, September 27.

CHRISTMAS VACATION, December 23 to January 2, inclusive.

COMMENCEMENT (Graduating Exercises), Thursday, May 2, 1901.

**HOLIDAYS: Thursday of Fair Week, Thanksgiving Day.
Washington's Birthday.**

MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY.

BOARD OF OVERSEERS.

ELISHA H. GREGORY,M.D., Chairman.
GEORGE E. LEIGHTON. G. BAUMGARTEN,M.D., Sec'y.
HENRY HITCHCOCK. ISAAC W. MORTON.
JAMES E. YEATMAN. HERMAN TUHOLSKE,M.D.
HORATIO N. SPENCER,M.D.
WASHINGTON E. FISCHEL,M.D.

FACULTY AND INSTRUCTORS.

J. B. JOHNSON,M.D.,
Professor Emeritus of the Principles and Practice of Medicine.

P. GERVAIS ROBINSON,M.D., LL.D.,
Professor Emeritus of the Principles and Practice of Medicine.

J. K. BAUDUY,M.D., LL.D.,
Professor Emeritus of Psychological Medicine and Diseases of the Nervous System.

WINFIELD S. CHAPLIN,LL.D.,
Chancellor of the University, Acting Dean,

ELISHA H. GREGORY,M.D., LL.D.,
Professor of the Principles of Surgery.

G. BAUMGARTEN,M.D.,
Professor of the Practice of Medicine.

H. TUHOLSKE,M.D.,
Professor of the Practice of Surgery.

T. F. PREWITT,M.D.,

Professor of the Principles of Surgery.

W. E. FISCHEL,M.D.,

Professor of Clinical Medicine.

ROBERT LUEDEKING,M.D.,

Professor of the Diseases of Children.

JOHN P. BRYSON,M.D.,

Professor of Genito-Urinary Surgery, Treas.

JUSTIN STEER,M.D.,

Professor of Clinical Medicine.

W. A. HARDAWAY,M.D., LL.D.,

Professor of Diseases of the Skin and Syphilis.

H. N. SPENCER,A.M., M.D., LL.D.,

Professor of Oatology.

W. C. GLASGOW,A.B., M.D.,

Professor of Clinical Medicine and Laryngology.

HENRY SCHWARZ, M. D.,

Professor of Obstetrics.

PAUL Y. TUPPER,M.D.,

Professor of Applied Anatomy and Operative Surgery.

E. W. SAUNDERS,M.D.,

Professor of Diseases of Children and Clinical Midwifery.

N. B. CARSON,M.D.,

Professor of Clinical Surgery.

J. B. SHAPLEIGH,M.D.,

Professor of Oatology, Secretary.

SIDNEY P. BUDGETT,M.D.,

Professor of Physiology, Registrar.

W. H. WARREN,Ph.D.,

Professor of Chemistry.

R. J. TERRY,M.D.,
Professor of Anatomy.

JOHN GREEN,M.D.,
Special Professor of Ophthalmology.

FRANK R. FRY,M.D.,
Professor of Diseases of the Nervous System.

F. A. GLASGOW,M.D.,
Professor of Clinical Gynecology.

H. G. MUDD,M.D.,
Professor of Fractures and Dislocations, and Clinical Surgery.

E. M. SENSENEY,M.D.,
Professor of Diseases of the Throat, Nose, and Chest.

A. J. STEELE,M.D.,
Professor of Orthopedic Surgery.

JOSEPH GRINDON,M.D.,
Professor of Clinical Dermatology and Syphilis.

A. V. L. BROKAW,M.D.,
Professor of Clinical Gynecology.

AMAND RAVOLD,M.D.,
Professor of Bacteriology and Hygiene.

CHARLES NAGEL,LL.B.,
Professor of Medical Jurisprudence.

ELSWORTH SMITH, JR.,M.D.,
Clinical Professor of Medicine.

D. C. GAMBLE,M.D.,
Clinical Professor of Diseases of the Ear.

CHARLES H. DIXON,M.D.,
Clinical Lecturer on Surgery.

HENRY L. WOLFNER,M.D.,
Clinical Lecturer on Diseases of the Eye.

GREENFIELD SLUDER,M.D.,
Clinical Lecturer on Diseases of the Nose, Throat and Chest.

EDWIN C. BURNETT,M.D.,
Clinical Lecturer on Syphilis.

VILRAY P. BLAIR,M.D.,
Lecturer on Descriptive Anatomy.

A. E. EWING,M.D.,
Clinical Lecturer on Diseases of the Eye.

LOUIS H. BEHRENS,M.D.,
Clinical Lecturer on Diseases of the Chest.

ALBERT E. TAUSSIG,M.D.,
Clinical Lecturer on Medicine.

THEODOR KODIS,M.D.,
Lecturer on Pathology, and Curator of the Museum.

HENRY C. HARTMAN,M.D.,
Clinical Lecturer on Orthopedic Surgery.

GIVEN CAMPBELL, JR.,M.D.,
Clinical Lecturer on Diseases of the Nervous System.

GEORGE M. TUTTLE,M.D.,
Lecturer on Therapeutics.

MEDICAL DEPARTMENT.

SESSION 1900-1901.

Early in the year 1899 the respective Faculties of the St. Louis Medical College and the Missouri Medical College took certain preliminary steps looking to the union of these two institutions. With this end in view both faculties resigned, and in due course combined to form the Medical Department of Washington University.

The Missouri Medical College was founded in 1840, and with the exception of the years of the Civil War has given continuous instruction up to the present time.

The St. Louis Medical College was founded in 1842, and has just completed its 58th consecutive annual course. Under an ordinance enacted in 1891, it was created the Medical Faculty of the Washington University, and has continued in that relation since that time.

This union of the two oldest and most representative of the medical colleges in the West was undertaken and successfully consummated solely in behalf of a broader and more thorough training, and we firmly believe that this object has been accomplished.

As will be seen in another place, there has been a considerable increase in the size and effectiveness of the teaching force, the University has at its disposal two new and finely equipped college buildings, and the facilities for clinical work have been greatly multiplied.

The graded course of study now some time established

has been elaborated and extended as experience has dictated, and always in the direction of higher standards and broader teaching. Now that four years of attendance prior to graduation have been adopted and required from all candidates, it has become possible to introduce new features in the plan of instruction, by which the student will gain greater leisure for his work and more liberty in the selection of his studies.

A distinctive feature of the Medical Department of the Washington University is the requirement of and full provision for extended laboratory work, by every student, in all the fundamental subjects of medical study. The extent and scope of the required practical work in Anatomy and in Chemistry have been greatly enlarged, and full laboratory courses are given in Histology, in Medical Chemistry, in Pathological Anatomy, and in Bacteriology. The actual making of post-mortem examinations by the student himself will be made a feature of the instruction.

In general the method of teaching pursued in this institution will be, so far as practicable, that of direct personal instruction of each student. In addition to the usual methods of lectures, didactic and clinical, there will be recitations from the text-books, and clinical conferences, in which the student examines the patient and submits a written report of his diagnosis for criticism and discussion.

HOSPITALS AND DISPENSARIES.

Especial attention is called to the unusual clinical advantages offered the student in connection with the

large number of Hospitals and Dispensaries directly under the control of the Medical Department of the Washington University.

SAINT LOUIS MULLANPHY HOSPITAL.

This is the oldest and most widely-known general hospital in the West. Its extensive general and special clinics are conducted by members of this Faculty, and are devoted wholly to the instruction of its students.

SAINT JOHN'S HOSPITAL.

Saint John's Hospital, recently enlarged by new buildings, is in charge of the Sisters of Mercy. Its medical and surgical management is entirely controlled by this Faculty. This institution is situated within a few blocks of the college. In addition to the hospital proper there is a large out-door attendance of patients in the several dispensaries.

POLICLINIC HOSPITAL AND DISPENSARIES.

The Polyclinic Hospital, which adjoins one of the main buildings of the college, contains a number of wards and rooms that are especially maintained for the reception of patients treated in the college clinics, a matter of great convenience and utility in teaching. The dispensaries in connection with the Hospital are unusually largely attended, and are so organized in general and special clinics that the greatest abundance of material for instruction can always be utilized. In addition to the usual reception and consultation rooms, pharmacy, etc., there is a handsome surgical amphitheater capable of seating over four hundred students.

BETHESDA HOSPITAL.

The Bethesda Hospital, with its maternity and foundling departments, is under the direct supervision of Professor E. W. Saunders, and is accessible to the senior students of this college only. Opportunity is here afforded for exercises in obstetrical diagnosis, and in acquiring practical experience in midwifery. At the Foundling Hospital the student is made familiar with infantile diseases and artificial feeding.

O'FALLON DISPENSARY.

The O'Fallon Dispensary is a special clinical department of the college with general medical and surgical clinics and the various special clinics fully represented.

An Obstetrical Out-clinic attached to the Dispensary affords the senior students special opportunities for practical work in this important branch of medicine.

At the City Hospital, the Female Hospital, the Insane Asylum, and the Poor House, the college stands on equal terms with others in the privilege of visiting and clinical instruction.

The attention of students is called to the fact that a corps of assistant physicians to the various municipal hospitals is appointed each year after competitive examination, to which all members of the graduating class are eligible.

We beg to direct attention to the fact that hitherto four-fifths of the positions in the city hospitals have been filled by the graduates of the Saint Louis and Missouri Medical Colleges.

THE COURSE OF STUDY.

The curriculum is based upon the amount and kind of work required to be done by candidates for the degree. The courses to be followed are graded in such a manner that all the fundamental studies and general courses are required to be taken before special courses and advanced work can be pursued. Of the latter a certain part is optional or elective; and of the large amount of clinical work a considerable part is made elective in order that the student may enjoy some liberty in the pursuit of the higher studies and specialties. Thus the greater part of work required for the degree shall consist of obligatory courses and the remainder may be chosen out of a large assortment of electives. In the choice of electives the student will be advised by members of the Faculty.

Ordinarily, a course of three hours a week or four to six hours laboratory work for one semester is counted as one unit of work. Whenever a student has completed a unit satisfactorily the teacher will issue to him, with or without examination, as seems necessary to determine his standing, a certificate which shall be final evidence of the student's having passed in the respective course. In case the student does not attain to a satisfactory mark in that unit, he must go over the subject a second time or present himself for examination in it at the end of the next semester. Entrance upon studies of the third and fourth year will be permitted only upon evidence that he has performed the total amount of work required for the first and second year. A student deficient in *one branch only* of the work of the first and second years may, however,

continue the work of the third year on condition that he make up the deficiency by the end of the third year. At the end of the fourth year the degree will be conferred upon presentation of evidence of satisfactory performance of all work required for the third and fourth year.

TOTAL WORK REQUIRED.

To fulfill the conditions for graduation, the minimum of work to be done in the First and Second Year is 28 units, viz.: in Chemistry 4 units, Anatomy 9, Histology 2, Physiology 2, Materia Medica and Therapeutics 2, Pathology and Bacteriology $5\frac{1}{2}$, Medicine $2\frac{1}{2}$, total $27\frac{1}{2}$; requiring at least one elective.

The minimum of work required in the Third and Fourth Year is 36 units. A large part of this is clinical work, which is to a great extent elective; it must be so chosen that the candidate presents certificates of satisfactory work in

Medicine (exclusive of $2\frac{1}{2}$ units in Second Year, but including Clinics of Diseases of Nose, Throat and Chest, $\frac{1}{2}$ units)	9 units.
Pediatrics	$3\frac{1}{2}$ "
Diseases of the Nervous System	$1\frac{1}{2}$ "
Surgery (including Orthopedics $\frac{1}{2}$ units)	10 "
Genito-Urinary Surgery	$1\frac{1}{2}$ "
Gynecology	1 "
Obstetrics	3 "
Dermatology	1 "
Ophthalmology	1 "
Otology	1 "
Hygiene	$\frac{1}{2}$ "
Forensic Medicine	1 "
Total	<u>34</u> "

the remainder to be made up of electives and a large variety of clinical instruction, allowing the individual student considerable liberty of choice.

The following table exhibits the distribution of obligatory and elective courses by Semesters:—

OBLIGATORY.		ELECTIVE.
First Year.		
1st Semester:		
Chemistry	(2 units)	
Anatomy	(4)	
Histology	(1)	
2d Semester:		
Chemistry	(2)	
Anatomy	(4)	
Histology	(1)	
Physiology	(1)	
Second Year.		
3d Semester:		
Physiology	(1)	Chemistry (1)
Mat. Med. & Therap.	(1)	Physiology (1)
Pathology	(2)	
Medicine	(1)	
4th Semester:		
Anatomy	(1)	Mat. Med., etc. (1)
Mat. Med. & Therap.	(1)	Pathology (1)
Pathology	(3)	Dermatology (optional) —
Medicine	(1)	Clinics (1)
Third Year.		
5th Semester:		
Medicine	(1)	Anatomy (?)
Pediatrics	(1)	Pathology (1)
Dis. Nervous System	(1)	Surgery (1)
Surgery	(1)	Clinics (7)
Obstetrics	(1)	
Dermatology	(1)	

OBLIGATORY.

ELECTIVE.

Third Year. 6th Semester:

Medicine	(1)	Anatomy	(?)
Pediatrics	(§)	Pathology	(§)
Surgery	(§)	Pathology (optional)	—
Obstetrics	(§)	Clinics	about (9)
Dermatology	(§)		
Ophthalmology	(§)		
Otology	(§)		

Fourth Year. 7th Semester:

Medicine	(1)	Anatomy	(?)
Pediatrics	(§)	Clinics	about (12)
Surgery	(§)		
Genito-Urinary Surgery	(§)		
Obstetrics	(§)		
Ophthalmology	(§)		
Hygiene	(§)		

8th Semester:

Medicine	(1)	Anatomy	(?)
Surgery	(§)	Pathology (optional)	—
Obstetrics	(§)	Dis. Nervous System	(§)
Forensic Medicine	(1)	Gen.-Ur. Surgery	(§)
		Clinics	about (12)

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the College will be received upon the following conditions:—

1. Satisfactory certificates of good moral standing.
2. (a) The presentation of a College degree in Letters or Science, (b) of a diploma or certificate of graduation from an Academy or High School, or (c) of a certificate showing that the candidate has passed the entrance examination to an accredited College or Scientific School, or

(d) the special preliminary examinations prescribed by State regulations for admission to the study of medicine, or (e) passing an examination in the following branches: English grammar and composition, arithmetic, algebra as far as quadratics, elementary physics, United States history, geography, and Latin equivalent to one year in a High School." *

These examinations will be conducted by examiners appointed by the Chancellor of Washington University.†

Inasmuch as the requirements preliminary to the study of medicine and to the registration of physicians vary somewhat in the different States, it is particularly enjoined upon all students to conform in all respects, to the special regulations governing admission to medical practice in the State in which they intend to reside.

ADVANCEMENT TO NEXT YEAR'S WORK.

Regular students candidates for the degree will be admitted to the Second Year class upon evidence of having completed a majority of the studies of the First Year.

Entrance upon the work of the Third Year is conditioned upon satisfactory completion of all work required in the first two years, but a student deficient in one

* Candidates who fail in the examination in Latin will be given an opportunity to make up the deficiency before the beginning of their second year.

† Regular entrance examinations will be held on the Tuesday and Wednesday before the opening of the term in September. Candidates may, however, arrange for special examination during the summer by applying to the Dean.

branch only will be admitted to the Third Class on condition that he make up the deficiency by the end of the Third Year.

Compliance or non-compliance with these requirements is to be determined by the number of units of work credited to the student on the records of the Registrar.

ENTRANCE TO ADVANCED STANDING.

Graduates in Dentistry may enter the Second Year Class on passing a satisfactory examination in the studies of the First Year.

Graduates in Pharmacy will be required to take the full Four Years Course, but will be given credit for their work in Materia Medica and Pharmacy, and in Chemistry on passing a satisfactory examination in this branch.

Graduates of Colleges of Letters or Science who have followed a course in Biology equivalent to at least a majority of the studies of the First Year in this school may enter the Second Year Class, and receive credit for as much of the work of the First Year as they have already done. Since, however, the amount and character of the biological work required for obtaining such degrees vary widely in different institutions, the Faculty reserves the right in any case to satisfy itself of the fitness of the applicant by examination.

Students from other reputable medical colleges will be admitted to the corresponding class in this school with or without examination in the work of the preceding years according to the judgment of the Executive Committee.

Arrangements have been made with the Faculty of the Undergraduate Department of Washington University whereby students in that Department intending to enter the Medical School may elect in their A. B. course certain branches of the medical course. These are to be taken in the Medical School and the grades so made will be credited to them in both their A. B. course and their M. D. course. By this means the time required for obtaining the two degrees may be shortened. Further information concerning this arrangement will be cheerfully given on request.

DOUBLE DEGREE IN MEDICINE AND DENTISTRY.

Students of the Missouri Dental College who desire to obtain the medical degree also may shorten the course by matriculating in the medical school at the beginning of their studies, and completing the work of the first two years of the medical course during their dental course and then taking the last two years in the medical school. They may thus obtain both degrees in 5 instead of 7 years. The fee for this course shall be the matriculation fee, a laboratory fee to be established by the Faculty and the tuition fee for two years.

GRADUATE COURSES.

Physicians, graduates of an accredited regular school of medicine, are admitted to any of the courses of instruction given in the College, subject to such restrictions as may grow out of the assignment of hours in the

programmes of work laid out for the several classes, and to the single further restriction that, in the case of those desirous of taking advanced laboratory work, such proficiency in elementary work as may be necessary for its successful prosecution will be required. A certificate of actual attendance will be given upon request.

REQUIREMENTS FOR GRADUATION.

- (1) The candidate must be twenty-one years of age.
- (2) He must be of good moral character (which includes unexceptionable conduct while at College).
- (3) He must have attended not less than four regular annual courses of medical instruction, the last of which must have been in this college.
- (4) He must, by the first of April, have notified the Dean, in writing, of his intention to present himself as a candidate for the degree.
- (5) He must have discharged all indebtedness to the College.
- (6) He must present evidence of satisfactory performance of at least the minimum amount of work required in the course.

FEES.

(PAYABLE IN SEPTEMBER OF EACH YEAR.)

Matriculation fee (payable but once)	\$ 5 00
Fee for each year	100 00

A charge of \$5.00 will be made to cover the cost of chemicals supplied to students in the Chemical Laboratory, and of \$1.00 for each "part" of anatomical material dissected.

No charge is made for demonstrator's or hospital tickets, or for graduation.

The matriculation fee (\$5.00), and the fee for the year (\$100.00), are payable to the Dean or the Registrar at the time

of matriculation, at the beginning of the college year in September.

Students are required to provide themselves with such articles of chemical apparatus as test-tubes, watch-glasses, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

All indebtedness to the College must be discharged before entering on the final examination for graduation.

NOTE — Graduates of the St. Louis Medical College and of the Missouri Medical College have perpetual free admission, but will be charged a laboratory fee of \$20.00.

Graduates, under three years, of other medical schools will be charged the matriculation fee and twenty dollars for attendance during a college year, or part of a year; they will also be charged a laboratory fee of \$20.00.

Graduates of other medical schools, of three or more years standing, will be charged the matriculation fee and a laboratory fee of \$20.00.

Graduates in medicine who may be admitted to the College as candidates for a degree will be charged the matriculation fee and the fee for one year.

Special Courses of Instruction may be arranged by applying to the Dean.

SCHOLARSHIPS.

1. The HENRY HITCHCOCK SCHOLARSHIP is held by Hon. Henry Hitchcock, and entitles the beneficiary to one year's free tuition.

2. The GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Diseases of Children, entitles the holder to one year's free tuition.

PRIZES.

Two "GEORGE F. GILL" prizes are offered to the students of the College, viz.: —

1. One prize of \$50 to be awarded at the end of the

First Year to the member of the class who shall have made the highest grade in anatomical work assigned to the First Year Class.

2. One prize of \$50 to be awarded to a member of the graduating class, of high general standing, who shall have done specially good work in the department of *Diseases of Children*.

3. A CURTMAN prize will be awarded at the end of the First Year to the member of the class who shall have made the highest grade in Chemistry.

PRIZES FOR 1900.—The GILL prize in Diseases of Children was awarded to Dr. W. H. Luedde of the Graduating Class.

The GILL prize in Anatomy was awarded to Mr. Emmett W. McBratney of the First Year Class.

Honorable Mention was made of the following gentlemen: Mr. A. C. Kimball, Mr. Henry Pace, and Mr. M. L. Klinefelter.

The CURTMAN prize in Chemistry was awarded to Mr. C. M. T. Klie of the First Year Class.

STUDENTS.

NAMES.	RESIDENCE.
Aitken, W. A.	Kansas.
Albrecht, F. H.	Missouri.
Althans, C.	Missouri.
Apperson, E. L.	Missouri.
Arnold, J. T., M.D.	Missouri.
Austin, A. M.	Illinois.
Bader, G. W., Ph.G.	Illinois.
Baldwin, Paul	Missouri.
Ball, J. E., Jr.	Missouri.
Barclay, Robert, A.M., M.D.	Missouri.
Barry, F. W.	Illinois.
Beard, J. C., M.D.	Kentucky.
Beatty, J. D.	Iowa.
Benner, W. J.	Illinois.
Benway, W. H.	Missouri.
Bohn, J. C., Jr., Ph.B.	Illinois.
Boles, D. S.	Illinois.
Bolton, J. F., A.B.	Arkansas.
Bradley, J. M.	Missouri.
Brandt, A. L.	Missouri.
Brandt, F. A.	Missouri.
Brown, A. F.	Missouri.
Brown, E. T.	Mississippi.
Brown, L. S.	Illinois.
Brownfield, S. T.	Missouri.
Buchanan, J. M.	Missouri.
Buckley, J. E., Ph.G.	Missouri.
Burns, Robert, Jr.	Missouri.
Calhoun, D. S.	Louisiana.
Cannady, E. W.	Illinois.
Cannon, Harry	Montana.
Carver, F. H.	Missouri.

NAMES.	RESIDENCE.
Caughlin, W. T.	Canada.
Chandeysson, P. I.	France.
Clapper, W. L.	Missouri.
Cobble, T. H., Jr.	Texas.
Cochran, F. B.	Missouri.
Collins, J. A.	Missouri.
Conway, W. Q.	Missouri.
Corner, A. W.	Missouri.
Craig, J. A.	Missouri.
Craske, H. B.	Illinois.
Crenshaw, W. C.,B.S.	Missouri.
Cummings, R. N.,A.B.	Illinois.
Davie, Joseph	Illinois.
Deichmann, O. H.	Illinois.
DeMenil, H. N.	Missouri.
Dickerson, H. W.	Missouri.
Dillon, William,A.B., A.M.	Missouri.
Dixon, J. C.,M.D.	Kentucky.
Downey, L. J.	Indiana.
Drake, C. F.	Missouri.
Drake, J. E.	Florida.
Dudley, J. M.	Kentucky.
Eastman, C. W.	Washington.
Eisenhower, C. W.,B.E., M.E.	Pennsylvania.
Elbrecht, O. H.,Ph.G., Ph.B.	Missouri.
Estill, F. L.	Colorado.
Evans, J. L.	Indiana.
Evers, E. T.	Missouri.
Fahlen, Fred.	Missouri.
Farrell, J. J.	Missouri.
Faulbaum, A. W.,Ph.G.	Illinois.
Ferguson, S. J.,D.M.D.	Missouri.
Feuerborn, H. R.	Missouri.
Fink, F. C.	Illinois,
Flagge, P. W.	Illinois.
Fleeger, A. B.	Missouri.

NAMES.	RESIDENCE.
Forder, W. C.	Missouri.
Forsyth, R. C.	Missouri.
Foster, R. C.	Texas.
Frame, H. G.	Missouri.
Freund, J. T.	Missouri.
Freund, N. M.	Missouri.
Friedeberg, A. H., Ph.G.	Missouri.
Fuhrmann, R. H.	Missouri.
Fuller, A. G.	Missouri.
Gable, E. O.	Illinois.
Gallagher, J. C.	Nebraska.
Gardner, A. J.	Missouri.
Garstang, D. B.	Missouri.
Gauen, G. O.	Illinois.
Gehrung, J. A., A.B., A.M.	Missouri.
George, C. A.	Arkansas.
Glahn, C. P., Jr.	Missouri.
Gordon, F. N., A.B.	Missouri.
Greensfelder, H. B., Ph. G.	Missouri.
Griffin, Fred.	Illinois.
Grim, E. C., B.S.D.	Missouri.
Gsanther, A. H.	Missouri.
Guhman, C. N.	Missouri.
Hagebush, O. J.	Illinois.
Hale, R. W., M.D.	Wyoming.
Hardy, J. B.	Illinois.
Hardy, W. F.	Missouri.
Harris, I. J.	Missouri.
Hempel, Max.	Missouri.
Hertel, H. G.	Illinois.
Hinkle, C. G.	Arkansas.
Hofmann, Ottokar, Jr.	Kansas.
Hogg, Garrett, B.S.	Missouri.
Holben, R. E.	Illinois.
Hope, D. H.	Missouri.
Horton, W. N.	Illinois.

NAMES.	RESIDENCE.
Horwitz, A. E.,A.B.	Missouri.
Humphrey, J. H.	Missouri.
Hunker, Lewis, Jr.	Missouri.
Irwin, J. M.,A.B.	Illinois.
Jacobs, F. M.	Missouri.
Joesting, F. C.	Illinois.
Jones, J. T.,M.D.	Texas.
Johnson, W. T.,M.D.	Illinois.
Jungk, C. G. W.	Missouri.
Keithly, C. L.,A.B.	Missouri.
Keller, H. S.	Illinois.
Keller, Jake	Illinois.
Kimball, A. C.,A.B.	Missouri.
Kirby, F. B.,A.B.	Arkansas.
Kirchner, W. C. G.,A.B.	Missouri.
Kleycamp, A. F.	Missouri.
Klie, C. M. T.,Ph.G.	Missouri.
Klinefelter, M. L.	Illinois.
Krenning, W. G.	Missouri.
Koenig, G. W.	Missouri.
Kroeger, G. B.	Missouri.
Langan, H. L.	Missouri.
LeBien, E. A.,Ph.G.	Kansas.
LeGrand, D. W.	Illinois.
Lenz, Herman	Wisconsin.
Lester, R. B.	Missouri.
Leusley, M. E.	Missouri.
Lilly, T. E.	Missouri.
Lionberger, J. R.	Missouri.
Lischer, R. B.	Illinois.
Loewenstein, H. M.	Missouri.
Loffhagen, E. H.	Missouri.
Long, F. L.	Missouri.
McBratney, E. W.,Ph.B.	Illinois.
McCaffrey, H. E.	Massachusetts
McClintock, W. J.	Illinois.

NAMES.	RESIDENCE.
McCully, Alexander	Missouri.
McCutchan, C. L.	Missouri.
McGlothlan, A. B.	Missouri.
McKenna, J. J.	Missouri.
McQuillan, J. A.	Illinois.
Magoon, F. L.,M.D.	Missouri.
Marnell, F. S.	Nebraska.
Marshall, Albert	Missouri.
Martin, J. G.	Missouri.
Matlack, A. J.,M.D.	Illinois.
May, Albert	Illinois.
Mayes, E. G.	Illinois.
Mayes, J. F.,Ph.B.	Indian Territory.
Miller, Chester., V. S.	Missouri.
Miller, H. B.	Missouri.
Miller, H. E.	Missouri.
Moeller, C. E.	Illinois.
Montague, E. L.	Missouri.
Nelson, W. L.	Missouri.
Newcomb, P. B.,B.S.	Iowa.
Nies, F. H.	Missouri.
Nolan, J. A.	Illinois.
Nutz, J. F.,A.B.	Kansas.
Pace, Henry	Arkansas.
Patrick, P. L.	Missouri.
Patterson, R. V.	Louisiana.
Pfeiffenberger, J. M.	Illinois.
Pieper, G. A.	Missouri.
Pierce, C. E.,Ph.G.	Illinois.
Pierce, William	Missouri.
Pinkerton, B. G.,M.D.	Syria.
Pitman, J. B.	Missouri.
Ponder, E. T.	Arkansas.
Pote, T. B.	Indiana.
Rafter, J. G.,Ph.G.	Missouri.
Rawlings, C. L.	Indiana.

NAMES.	RESIDENCE.
Reid, E. W.	Missouri.
Reuss, A. L.	Illinois.
Reyburn, A. V., Jr.	Missouri.
Riffel, B. F.	Arkansas.
Riley, R. D.	Missouri.
Rohlfing, A. H.	Missouri.
Rooney, H. M.,A.B.	Illinois.
Ross, J. E.	Missouri.
Rothman, P. M.	Missouri.
Rothschild, Samuel	Missouri.
Rush, W. H.,B.S., A.M.	Missouri.
Sasvil, E. M.	Missouri.
Scheve, E. F.	Missouri.
Schewe, E. F.	Missouri.
Schneider, B. F.	Illinois.
Scholz, R. P.	Missouri.
Schreiber, A. W.	Indiana.
Schulte, H. G.	Missouri.
Schulz, H. E.	Illinois.
Scott, C. D.,A.B.	Missouri.
Scott, T. A.,B.S.	Indian Territory.
Shanks, A. L.	Missouri.
Simmons, J. A.	Missouri.
Simpson, James	Illinois.
Singer, J. J.	Missouri.
Smith, A. J.	Missouri.
Smith, N. E.	Missouri.
Smith, O. W.	Missouri.
Smith, P. M.,Ph.B.	Arkansas.
Snodgras, C. A.	Missouri.
Snoddy, J. M.	Illinois.
Spannagel, W. C.,Ph.G.	Illinois.
Sparks, J. E.	Arkansas.
Spitze, E. C.	Illinois
Stayner, I. C.	Ohio.
Stephens, G. K.	Arkansas.

NAMES.	RESIDENCE.
Stephens, W. S.	Missouri.
Stiers, F. L.	Illinois.
Sullivan, J. W.	Missouri.
Sutcliffe, J. S.,M.D.	Missouri.
Switzer, Clyde	Missouri.
Terry, H. A.	Illinois.
Thompson, H. L.	Illinois.
Todd, D. C.	Utah.
Tooker, C. W., Jr.	Missouri.
Trottman, C. A.	Missouri.
Tuholske, M. C.	Ohio.
Unterberg, Hille	Missouri.
Urban, E. T.	Missouri.
VanMeter, S. Y.,B.L., A.B.	Missouri.
Wainwright, A. G., Jr.	Missouri.
Wales, J. L.	Nebraska.
Walker, H. O.	Arkansas.
Walser, O. T.	Missouri.
Watson, W. H.,M.D.	Missouri.
Wear, W. N.	Illinois.
Weber, F. J.	Illinois.
Whaley, R. W.	Missouri.
Whelpley, F. L.	Missouri.
Wichmann, A. G.	Missouri.
Widney, J. T. B.	Kansas.
Wilson, H. V.	Illinois.
Wilson, S. W.	Texas.
Winn, R. M.	Missouri.
Wise, P. L.	Missouri.
Woldridge, H. L.	Missouri.
Wolter, O. L.	Minnesota.
Worden, G. K.	Illinois.
Wright, C. M.,B.S.	Illinois.
Wylder, M. K., B.S.	Illinois.
Yerkes, L. L.	Illinois.
York, F. A.,M.D.	Missouri.

HOSPITAL APPOINTMENTS.

Positions as internes at the St. Louis City and Female Hospitals are awarded each year after competitive examination conducted by the Board of Health. The successful candidates from the Washington University in 1900 were: Drs. W. H. Luedde, B. G. Pinkerton, R. L. Campbell, H. W. Davis, J. D. Hess, and C. E. Gimbel.

Physicians who wish to receive the Annual Announcement of the Medical Department of Washington University regularly, are requested to send their address to the Secretary of the Faculty; notice of change of residence is also desired. All further information may be obtained by addressing or calling upon the Secretary,

DR. J. B. SHAPLEIGH,
2608 Locust Street.

MISSOURI DENTAL COLLEGE.

(DENTAL DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR 1901-1902.

REGULAR ENTRANCE EXAMINATIONS: Tuesday and Wednesday, September 24-25, 1901.

OPENING OF SESSION, Thursday, September 26, 1901.

HOLIDAY, Thanksgiving Day, Thursday, November 28, 1901.

VACATION, December 21, 1901, to January 3, 1902, inclusive.

HOLIDAY, Washington's Birthday, Saturday, February 22, 1902.

EXAMINATION of Junior and Middle Classes begins Thursday, April 10, 1902.

COMMENCEMENT, Thursday, April 24, 1902.

Dentists who wish to receive the Annual Announcement regularly, or those who have changed their address, are requested to notify the Secretary of the Faculty.

DR. J. H. KENNERLY,
906 Chemical Building.

Students will be registered in the College Building by Dr. Sidney P. Budgett.

Any further information may be obtained by addressing or calling upon the Dean.

DR. ALBERT H. FULLER,
Columbia Building.

MISSOURI DENTAL COLLEGE.

BOARD OF OVERSEERS.

JAMES E. YEATMAN, President.

HENRY HITCHCOCK.

ALBERT H. FULLER,D.D.S., Secretary.

HENRY J. McKELOPS,D.D.S.

JAMES B. NEWBY,D.D.S.

FACULTY.

WINFIELD S. CHAPLIN,LL.D.,
Chancellor of the University.

ELISHA H. GREGORY,M.D., LL.D.,
Professor of the Principles and Practice of Surgery.

ALBERT H. FULLER,M.D., D.D.S., Dean,
Professor of Operative Dentistry.

ORION W. BEDELL,M.D., D.M.D.,
Professor of the Institutes of Dental Science.

SIDNEY P. BUDGETT,M.D.,
Professor of Physiology and Histology.

CHAS. W. RICHARDSON,D.D.S.,
Professor of Prosthetic Technics.

NORMAN B. CARSON,M.D.,
Professor of Oral and Clinical Surgery.

GEORGE S. TUTTLE, M.D.,
Professor of Materia Medica and Therapeutics.

ROBERT J. TERRY, M.D.,
Professor of Anatomy.

WILLIAM H. WARREN, A.M., Ph.D.,
Professor of Chemistry.

ARTHUR E. MATTESON, D.D.S.,
Professor of Orthodontia.

JOHN H. KENNERLY, M.D., D.D.S., Secretary,
Professor of Mechanical Dentistry.

HERMAN F. CASSEL, D.M.D.,
Assistant Professor of Mechanical Dentistry.

ALFRED D. FULLER, D.M.D.,
Assistant Professor of Crown and Bridge Work.

HERMAN PRINZ, B.S., Ph.G., D.D.S.
Professor of Dental Medicine and Metallurgy.

DEMONSTRATORS.

HERMAN F. CASSELL, D.M.D.,
BLAND N. PIPPIN, D.M.D.,
Mechanical Dentistry.

ALFRED D. FULLER, D.M.D.,
Crown and Bridge Work.

JOHN R. PENDLETON, D.D.S.,
BENNO E. LISCHER, D.M.D.,
Operative Dentistry.

VILROY P. BLAIR,
Anatomy.

CHARLES W. RICHARDSON,
Dental Technics.

CLINICAL INSTRUCTORS.

JAMES B. NEWBY,D.D.S.,
HENRY M. BAIRD,D.D.S.,
THEODORE L. PEPPERLING,D.D.S.,
ABEL J. PROSSER,D.D.S.,
JOHN G. HARPER,D.D.S.,
ORMOND H. MANHARD,D.M.D.,
ALBERT H. FULLER,M.D., D.D.S.,
ALFRED D. FULLER,D.M.D.,
JOSEPH B. KIMBROUGH,D.M.D.,
HARRY D'OENCH,D.M.D.,
CHAS. T. BEDELL,D.M.D.,
PETER H. EISLOEFFEL,D.D.S.,
MAX FENDLER,D.M.D.,
P. HOLM MORRISON,M.D., D.D.S.,
EDWARD SCHIRANTZ,D.D.S.,
THOMAS E. TURNER,D.D.S.,
STEPHEN H. VOYLES,D.M.D.,
MARTIN R. WINDHORST,D.M.D.,
OTTO J. FRUTH,M.D., D.D.S.,
WILLIAM J. LIERMAN,D.M.D.,
MAURICE W. PEARSON,D.D.S.,
MALCOLM ROBB,D.M.D.,
JOHN H. KENNERLY,M.D., D.D.S.,
WILLIAM G. COX,D.D.S.

GRADUATES, 1900.

NAME.	ADDRESS.
Bass, Andrew Jackson	Missouri.
Bauer, Alfred Gotfried	Missouri.
Bey, John Emil Charles	Missouri.
Dickson, Wesley Baxter	Missouri.
Dunn, Freeland Joseph	Missouri.
Ferrell, Houston Everett	Missouri.
Hartmann, John Michael	Ohio.
Heitzig, Albert William	Missouri.
Henry, Leonard Quinn	Missouri.
Hirschl, Robert O.	Missouri.
Horton, Edward Linn	Missouri.
Isle, Mauzey Whitefield	Missouri.
Kehde, Howard Augustus	Missouri.
Kraft, Louis Henry	Illinois.
Lischer, Benno Edward	Illinois.
Long, Joseph Elmer	Illinois.
McGuire, Eugene	Illinois.
Matkin, Elmer Hicks	Missouri.
Merriwether, Charles Lewis	Missouri.
Pettibone, Jacob Block	Missouri.
Pippin, Bland Nixon	Indiana.
Schwarz, Elmer Henry	Illinois.
Smith, Handy Linn	Missouri.
Stockhoff, Arthur Martin	Missouri.
Stone, Frank Powell	Missouri.
Straube, Clarence Shipherd	Missouri.
Wavrin, John Arthur	Iowa.
Wolf, Albert William	Illinois.
Wood, Harry Thomas	Missouri.
Wyckoff, Charles	Illinois.

SENIOR CLASS, 1901.

Behrens, Charles Frederick	Illinois.
Brown, J. Hinton	Missouri.

NAME.	ADDRESS.
Crane, LeRoy Vernon Miller	Missouri.
Dameron, Frank B.	Missouri.
Donnell, Thomas Gresham	Oregon.
Eaton, Howard Holmes	Illinois.
Ellis, Arthur Maud	Missouri.
Fischer, Edward John	Missouri.
Goodrich, Stephen Jones	Missouri.
Griffith, Edward	Missouri.
Haverstick, Edward Everett	Missouri.
Heitman, Frederick William	California.
Heitman, Herbert Louis	California.
Hopkins, Frank Cook	Illinois.
Hamm, Henry A.	Missouri.
Hutchison, Carroll	Missouri.
Jones, Louis Dibrell	Virginia.
King, Alpheus Carleton	Illinois.
Kuper, Bernard Leo	Missouri.
McCall, Robert Augustus	Illinois.
McDaniel, Mark Leroy	Illinois.
McClean, Alexander William	Missouri.
McHenry, Ralph Leonidath	Missouri.
McInerney, Henry Willam	Kansas.
McCaltman, Carl Spencer	Iowa.
Miller, Joseph Sanford	Missouri.
Myers, Joel E.	Illinois.
Nations, Hugh S.	Illinois.
O'Connell, Francis Elias	California.
Powell, Otho Bell	Kentucky.
Pierce, Jesse Allen	Illinois.
Selinger, Owen	Missouri.
Shellhorn, Arthur L.	Nebraska.
Sone, William James	Missouri.
Stamm, Anton Peter	Missouri.
Strode, Edward Austin	Missouri.
Staudinger, Paul	Missouri.
Stubblefield, Ed. Arthur	Arkansas.

NAME.	ADDRESS.
Terhellen, Emil William	Missouri.
Terrell, Will George Barkley	Illinois.
Thilenius, Arnold Otto	Missouri.
Trauernicht, Fred William	Missouri.
Van Buskirk, Joe M.	Iowa.
Wagner, Clifford Winfield	Illinois.
White, Jesse Duncan	Illinois.
Wannamaker, Earl	Missouri.
Westhoff, George Henry Martin	Missouri.
Williamson, Henry Turner	Texas.
Young, Wm. Beastall	Illinois.

MIDDLE CLASS, 1901.

Baeumer, W. E.	Illinois.
Bauer, F. W.	Missouri.
Belk, C. E.	Illinois.
Blain, G. J.	Missouri.
Diggs, C. W.	Missouri.
Dodge, Homer	Missouri.
Dutcher, W. L.	Missouri.
Gilster, G. B.	Illinois.
Gsanther, A. H.	Nebraska.
Hickey, M.	Missouri.
Ilse, J. W.	Illinois.
Linder, F.	Illinois.
Lindsey, J. L.	Missouri.
Lupton, S. K.	Tennessee.
McCalmut, O. R.	Missouri.
Mohr, L. H.	Missouri.
Moore, E. E.	Texas.
Mottaz, W. L.	Illinois.
Nations, G. J.	Illinois.
Oliver, H. W.	Illinois.
Roe, C. H.	Illinois.
Schewe, E. T.	Missouri.
Sellinger, H.	Missouri.

NAME.	ADDRESS.
Townsend, N. J.	Missouri.
Walker, R. F.	Missouri.
Watkins, J. D.	Missouri.

JUNIOR CLASS, 1901.

Allee, H. E.	Missouri.
Alloway, M. C.	Kentucky.
Ambrose, M. P.	Missouri.
Biggs, J. T.	Missouri.
Brown, J. A.	Missouri.
Burcham, W. J.	Missouri.
Collins, H. W.	Illinois.
Carey, B. W.	Illinois.
Crenshaw, W. C.	Missouri.
Chaudet, L. S.	Illinois.
Davis, C. W.	Texas.
Graf, J.	Missouri.
Graham, W. H.	Illinois.
Graham, G. D.	Illinois.
Graham, L. E.	Illinois.
Hohman, E. H.	Illinois.
Harrison, E. R.	Iowa.
King, K. A.	Texas.
Klunison, F. L.	West Virginia.
Landon, L. O.	Illinois.
Reynolds, W. A.	Virginia.
Summers, C. A.	Illinois.
Sweeney, J. A.	Missouri.
Scott, W. M.	Missouri.
Shikles, J. R.	Missouri.
Turpin, C. H.	Kentucky.
Wilkinson, A. D.	Missouri.
Weidlich, H. C.	Connecticut.
West, R. A.	Mexico.

REQUIREMENTS FOR ADMISSION.

Every candidate for admission must present to the Faculty satisfactory evidence of a good, moral character. He must have a good English education, as evidence of which he must present a certificate of graduation from a high school, college, or university; or an entrance certificate to the second year of a high school. The institution, however, granting these certificates to be accredited as standard by the communities within which they are located; or, in lieu of this certificate, he must take a written examination by an appointee of the State Superintendent of Public Instruction.

The Faculty reserves the right to terminate the connection of any student with this institution if he proves unfit to pursue his professional studies.

Students who have attended courses of lectures in other accredited schools of Dentistry, will be received into the advanced grades of Middle and Senior classes upon presentation of certificates of having passed examinations in the studies of the Junior and Middle grades respectively.

Such certificates are granted to any student after the satisfactory completion of a given course of study, and are recognized as pledges to any college of the Association of Dental Faculties to whom the holder may apply, that the stated number of terms have been spent in the institution by which the certificates are issued.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM DENTAL COLLEGES IN FOREIGN COUNTRIES.

Persons holding certificates from colleges of dentistry in foreign countries, shall be required to furnish properly

attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., the same as required of students coming from our own institutions.

ADMISSION OF GRADUATES OF MEDICINE.

A diploma from a reputable medical college may entitle the holder to enter the Middle class, and he may be excused from attendance upon the lectures, and examinations in general anatomy, chemistry, physiology, *materia medica* and therapeutics.

No student of any class will be registered for a full course after the tenth day of the session.

Students are required to register at the beginning of each session at the College Building before Dr. Sidney P. Budgett.

LECTURES.

The Course of lectures included in the curriculum of this College has been so classified and arranged as to give the student the best opportunity for gaining a thorough knowledge of the branches taught.

A portion of the lectures to dental students are given in the St. Louis Medical College, in connection with the medical classes, thus furnishing a rare opportunity for the dental student to acquire the comprehensive knowledge of the fundamental branches of the science of medicine, so indispensable to the successful practice of any specialty.

The Museum, Anatomical Rooms and Chemical Laboratory of the St. Louis Medical College are as free to the dental as to the medical student.

SCHEDULE OF STUDIES.

FIRST OR JUNIOR YEAR.

Subjects Completed the First Year.	Chemistry. Histology. Dental Anatomy. Materia Medica. Comparative Anatomy with Dissec- tion. Pharmacy. Descriptive Anatomy. Practical Anatomy. Mechanical Dentistry. Dental Technology, Lectures and Laboratory Work. Metallurgy.
Subjects taken First Year and Continued During Second Year.	

SECOND OR MIDDLE YEAR.

Subjects Completed the Second Year.	Descriptive Anatomy. Therapeutics. Metallurgy. Dental Technics.
Subjects taken Second Year and Continued During Third Year.	Physiology. Operative Dentistry. Mechanical Dentistry. Institutes of Dental Science.

THIRD OR SENIOR YEAR.

Subjects Completed the Third Year.	Physiology. Hygiene. Oral and Clinical Surgery. Operative Dentistry. Institutes of Dental Science. Mechanical Dentistry. Orthodontia. Dental Medicine.
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INFIRMARY.

This department is justly considered of the greatest practical importance. It is here the student must by the experience gained in actual practice with patients, lay the foundation for operative skill in his profession.

For this work the greater portion of three separate floors 26x84 feet have been set aside.

The first of these having a general office, with clerk and assistants constantly in charge to receive patients; a room for extracting teeth supplied with appliances for the administration of the various anæsthetics used in dentistry. The remaining space of this floor is divided into rooms for Crown and Bridge work, light laboratory work and taking impressions.

The second floor is used exclusively as an operating room, having one side of continuous windows reaching from floor to ceiling, each window being fitted out with a good chair, wall bracket and cabinet to hold the student's entire outfit including dental engines. Here with perfect light and pleasant surroundings, the student has an ideal place for learning the practical part of operative dentistry.

The basement is fitted out with modern apparatus for teaching all departments of Prosthetic Dentistry. This room has granitoid floors, good tables, benches, lathes, heating appliances, electric furnace and lockers for instruments. This infirmary, under the direction of the superintendent and demonstrators, is open daily except Sunday, during the entire year.

DENTAL TECHNICS.

Special courses are given during the first year for manual training in the mechanical operations of dentistry.

These comprise practical instruction by class work. The student takes impressions, makes sets of teeth, crowns, bridges, treats the more ordinary diseases of the teeth, and performs operations upon natural teeth set in convenient forms and studies the anatomy and physical structure of the teeth. Each operation is taken up separately and must be completed in a manner satisfactory to the demonstrator. This method of teaching, though comparatively new, has proven the best yet devised for the rapid attainment of the high degree of manual skill required in the practice of dentistry.

OPERATIVE TECHNICS.

A study of the anatomy of the teeth by observation of enlarged pictures of tooth surfaces. Typical sets of teeth must be selected from miscellaneous collections, and free-hand drawings made of typical tooth forms. Dissections of teeth; the making of silhouette prints of same showing forms of inner walls of pulp chambers and canals, and the relation of dentine and enamel.

A study of all the materials in common use for filling teeth and practice in the preparation and insertion of them.

Practice in the shaping of cavities and handling of the instrument required.

Practice in preparation and filling of root canals.
A study of instruments, their proper naming, and use.

PRIZES.

Prizes will be awarded for proficiency in the different branches taught in the College.

The Missouri Dental College Faculty Prize.—A fifty-dollar gold medal to the graduate receiving the highest vote on final examination.

Missouri Dental Depot Prize.—Lowry Crown and Bridge outfit. For best specimen of Crown and Bridge work.

The John Rowan Dental Mfg. Co. Prize.—To the graduate standing second best in practical Operative Dentistry.

The St. Louis Dental Manufacturing Company Prize.—For the best specimen case of artificial teeth.

The J. E. Kitzmiller Prize.—For the second best specimen case of artificial teeth. (Gold medal.)

REQUISITES FOR THE DEGREE OF DOCTOR OF DENTAL MEDICINE.

The candidate for graduation must be twenty-one years of age, and must possess a good moral character, *which includes good deportment while at the College.*

He must have attended three regular annual courses (no two courses of which shall have been taken during the same year) of dental instruction, the last of which must have been the Senior Course of this College.

He must treat thoroughly patients requiring all the usual dental operations, and under the eye of the Demonstrator, or Superintendent of the Infirmary, construct practical artificial cases. He must undergo a satisfactory examination on all the branches taught in the College and conform to the rules and regulations of the Infirmary.

Application for examination for the degree of D.M.D. must be made in writing by the 1st of April, each year, stating the claim of the applicant for such a degree.

This application should be accompanied by at least three letters of recommendation attesting good moral character from prominent citizens of the place of residence of the applicant.

FEES.

(PAYABLE IN SEPTEMBER OF EACH YEAR.)

Matriculation Fee (payable but once)	\$ 5 00
Fee for each year	100 00

A charge of \$5.00 will be made to cover the cost of chemicals supplied to students in the Chemical Laboratory, and of \$1.00 for each "part" of anatomical material dissected.

No charge is made for demonstrators' or hospital tickets, or for graduation.

The matriculation fee (\$5.00), and the fee for the year (\$100.00), are payable to the Dean or the Registrar at the time of matriculation, at the beginning of the college year, in September.

Students are required to provide themselves with such articles of chemical apparatus as test-tubes, watch-

glasses, small evaporating dishes, etc., and also to make good any loss by breakage or destruction of apparatus belonging to the College.

All indebtedness to the College must be discharged before entering on the final examination for graduation.

Students desiring to remain in the infirmary during the summer can do so by matriculating and paying \$25, which will be credited on their tuition at the beginning of the regular term.

TEXT-BOOKS.

LATEST EDITIONS ONLY.

Anatomy — Gray.

Chemistry — Long's Experimental and Analytical Chemistry.

Physiology — Foster's Text-Book of Physiology.

Pharmacy — U. S. Pharmacopœia.

Materia Medica and Therapeutics — H. C. Wood's.

Principles and Practice of Dentistry — Harris.

Mechanical Dentistry — Essig. Richardson.

Orthodontia — Gullford and Angle.

Surgery — "An American Text-Book of Surgery." Keen and White.

Operative Dentistry — Kirk. Taft.

Dental Anatomy and Pathology — Burchard. Tomes.

Histology — Piersol.

Metallurgy — Hodgen.

Books of Reference — American System of Dentistry; Harris' Dental Dictionary; Garretson or Tomes Dental Surgery; Kingsley and Coles — Oral Deformities; Newth's Inorganic Chemistry; Simon — Manual of Chemistry; Farrar — Irregularities of the Teeth; Marshall — Oral Surgery.

SUMMARY OF GRADUATES.

OF THE COLLEGE	226
OF THE SCHOOL OF ENGINEERING	203
OF THE LAW SCHOOL	722
OF THE MEDICAL COLLEGE	2,168
OF THE DENTAL COLLEGE	453
HONORARY GRADUATES	14
	3,786

SUMMARY OF MEMBERS OF THE UNIVERSITY.

	—1899-1900—		—1900-1901—	
	Stu.	Instr.	Stu.	Instr.
COLLEGE AND SCHOOL OF ENGINEERING.	182	28	161	23
LAW SCHOOL	149	16	124	16
MEDICAL COLLEGE	203	44	248	53
DENTAL COLLEGE	111	16	104	17
TOTAL GRADUATE AND UNDERGRADUATE DEPARTMENTS	645	99	637	109
 PREPARATORY SCHOOLS.				
SMITH ACADEMY	377	21	364	21
MARY INSTITUTE	411	28	457	30
MANUAL TRAINING SCHOOL	213	15	266	15
	1,001	64	1,087	66
TOTAL GRADUATE, UNDERGRADUATE AND PREPARATORY DEPARTMENTS	1,646	163	1,724	175
SCHOOL OF FINE ARTS	293	13	331	14
TOTAL CONNECTED WITH THE UNIVERSITY	1,939	176	2,055	189

OFFICERS OF THE ALUMNI ASSOCIATIONS.

UNDERGRADUATE DEPARTMENT.

President: MR. WILLIAM R. DONALDSON.
Vice-President: MR. THOS. G. RUTLEDGE.
Secretary and Treasurer: MR. WILLIAM H. ALLEN.
Executive Committee: MR. T. F. CHAPLIN, MR. RHODES E. CAVE, MR. WILLIAM D. HUDSON.

LAW DEPARTMENT.

President: MR. ARTHUR E. KAMMERER.
First Vice-President: MR. JEPHTA D. HOWE.
Second Vice-President: MR. WILLIAM F. WOERNER.
Secretary: MR. XENOPHON P. WILFLEY.
Treasurer: MR. HENRY W. OBERSCHELP.
Executive Committee: MR. WILLIAM E. O'BRIEN, MR. J. HUGO GRIMM, JUDGE SELDEN P. SPENCER.

MEDICAL DEPARTMENT.

President: DR. ALBERT E. TAUSIG.
Vice-President: DR. LOUIS H. BEHRENS.
Corresponding Secretary: DR. JOHN GREEN, JR.
Recording Secretary: DR. R. J. TERRY.
Treasurer: DR. PHIL. HOFFMAN.
Executive Committee: DR. J. W. CHARLES, DR. JOHN ZAHORSKY, DR. H. W. SOPER.

DENTAL DEPARTMENT.

President: DR. J. G. HARPER.
Vice-President: DR. O. H. MANHARD.
Secretary: DR. J. B. KIMBROUGH.
Treasurer: DR. C. E. SCHUMACHER.
Executive Committee: DR. C. E. SCHUMACHER, DR. A. H. FULLER, DR. T. L. POEPPELING.

OFFICERS OF THE ALUMNAE ASSOCIATION.

UNDERGRADUATE DEPARTMENT.

President: MISS LILLIE R. ERNST.
Vice-President: MISS MARY S. ITTNER.
Secretary and Treasurer: MISS SUSAN E. CHAPLIN.

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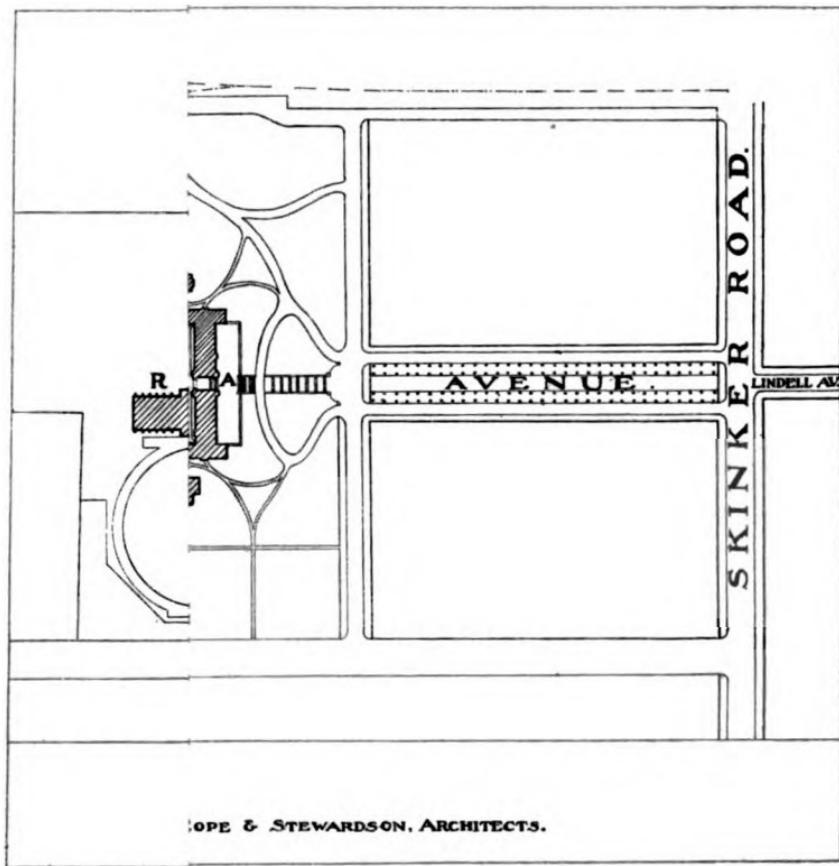
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7873
1136

WASHINGTON UNIVERSITY.



1901-1902.



- A — University H^o Q — Observatory.
- B — Busch Hall — R — Gymnasium.
- C1 — Cupples Hall S — Chapel.
- C2 — Cupples Hall T — Kitchen Service.
Engineering U1 — Commons Hall — Men.
- D — Cupples Engi U2 — Commons Hall — Women.
- E — Power House V — Dormitories for Men.
- F — Liggett Hall W — Dormitories for Women.
- G — Men's Dormit X — Athletic Field — Running Track, 8 laps to the mile.

Buildings al
Proposed by

A CATALOGUE
OF THE
OFFICERS AND STUDENTS
IN
WASHINGTON UNIVERSITY,
WITH THE
COURSES OF STUDY
FOR THE
ACADEMIC YEAR 1901-1902.

ST. LOUIS:
NIXON-JONES PRINTING CO.
1902.

CALENDAR FOR 1902 AND 1903.

1902.

APRIL.		MARCH.		FEB.		JAN.		
Sun.	Mon.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
5	6	7	8	9	10	11		
12	13	14	15	16	17	18		
19	20	21	22	23	24	25		
26	27	28	29	30	31			
AUG.		JULY.		MAY.		JUNE.		
Sun.	Mon.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
4	5	6	7	8	9	10	11	12
11	12	13	14	15	16	17	18	19
18	19	20	21	22	23	24		
25	26	27	28	29	30	31		
DEC.		NOV.		OCT.		SEPT.		
Sun.	Mon.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
7	8	9	10	11	12	13	14	15
14	15	16	17	18	19	20	21	22
21	22	23	24	25	26	27	28	29
28	29	30						

1903.

UNIVERSITY CALENDAR.

1901-1902.

- ENTRANCE EXAMINATION** to the Undergraduate Department,
Tuesday and Wednesday, September 24-25, 1901.
- ENTRANCE EXAMINATION** to the Law School, Tuesday, September 24.
- ENTRANCE EXAMINATION** to the Medical College, Tuesday and
Wednesday, September 24-25.
- ENTRANCE EXAMINATION** to the Dental College, Tuesday and
Wednesday, September 24-25.
- SCHOOL OF FINE ARTS opens Monday, September 23.
- UNDERGRADUATE DEPARTMENT opens Thursday, September 26.
- LAW SCHOOL opens Thursday, September 26.
- MEDICAL COLLEGE opens Thursday, September 26.
- DENTAL COLLEGE opens Thursday, September 26.
- HOLIDAY, Thanksgiving Day, Thursday, November 28.
- VACATION, December 23, 1901, to January 1, 1902, inclusive.
- FIRST TERM ends Saturday, February 1.
- SECOND TERM begins Monday, February 3.
- HOLIDAY, Washington's Birthday, Saturday, February 22.
- HOLIDAY, Good Friday, March 28.
- MEDICAL COLLEGE closes Friday, April 18.
- DENTAL COLLEGE closes Thursday, April 24.
- COMMENCEMENT, Medical and Dental Colleges, Thursday,
April 24.
- UNIVERSITY HOLIDAY, Friday, May 9.
- EXHIBITION OF WORK of School of Fine Arts, June 11-13.
- ENTRANCE EXAMINATION** to the Undergraduate Department,
Monday and Tuesday, June 16-17.
- COMMENCEMENT, Law School and Undergraduate Department,
Thursday, June 19.
- VACATION, June 20 to September 25.

1902-1903.

ENTRANCE EXAMINATION to the Undergraduate Department,
Tuesday and Wednesday, September 23-24, 1901.

ENTRANCE EXAMINATION to the Law School, Tuesday, September 23.

ENTRANCE EXAMINATION to the Medical College, Tuesday and
Wednesday, September 23-24.

ENTRANCE EXAMINATION to the Dental College, Tuesday and
Wednesday, September 23-24.

SCHOOL OF FINE ARTS opens Monday, September 22.

UNDERGRADUATE DEPARTMENT opens Thursday, September 25.

LAW SCHOOL opens Thursday, September 25.

MEDICAL COLLEGE opens Thursday, September 25.

DENTAL COLLEGE opens Thursday, September 25.

HOLIDAY, Thanksgiving Day, Thursday, November 27.

VACATION, December 24, 1902, to January 8, 1903, inclusive.

FIRST TERM ends Saturday, January 31.

SECOND TERM begins Monday, February 2.

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Office in University Building, 1704 Washington Avenue.

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* Died March 18, 1902.

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OF
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FREDERICK W. SHIPLEY, A.B.,
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Professor of Zoölogy
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of the French Language and Litera-
ture 5362 Maple av.
HARVEY C. GRUMBINE, Ph.D., As-
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M.M.E., Assistant Professor of Elec-
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Ph.D., Instructor in Botany 48 Nicholson pl.
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SAMUEL MONDS COULTER, A.M.,
Instructor in Botany 3924 Botanical av.
AMBROSE P. WINSTON, Ph.D.,
Instructor in Economics 3424 Lucas av.
LYMAN F. MOREHOUSE, B.S., In-
structor in Physics 4063 Delmar av.
JOHN J. LICHTER, D.E., Instructor
in Astronomy 5305 Virginia av.

ST. LOUIS SCHOOL OF FINE ARTS.

HALSEY C. IVES, Director, Lecturer
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 Art 3731 Westminster pl.
ROBERT P. BRINGHURST, In-
 structor in Modeling and Sculpture 1820 Locust st.
CHARLES WARD RHODES, In-
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 and Composition 3500 Henrietta st.
CHARLES P. DAVIS, Instructor in
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HENRIETTA ORD JONES, Instructor
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 structor in Design, Applied Art and
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SUSAN D'ARCY, Librarian 5884 Bartmer av.
GRACE HAZARD, Instructor in Satur-
 day Classes Kirkwood, Mo.
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RICHARD E. MILLER, Instructor in
 Drawing 4042 Connecticut av.
OSCAR W. RAEDER, Instructor in
 Drawing 2227 Warren av.

ST. LOUIS LAW SCHOOL.

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 Dean 2140 Lafayette av.
AMOS M. THAYER, LL.D. (U. S. Cir-
 cuit Judge), Professor of Equity and
 Real Property Law 3638 West Pine boul.

- CHARLES NAGEL, LL.B., Professor
of the Law of Contracts and Com-
mercial Law 3969 Washington boul.
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turer on International Law 1843 Kennett pl.
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EDWARD S. ROBERT, LL.B., Lec-
turer on Evidence 3224 Washington av.
JAMES P. MAGINN, LL.B., Lecturer
on Administration 5588 Bartmer av.
HENRY T. KENT, LL.B., Lecturer on
Jurisdiction of Federal Courts . . . 809 N. Grand av.
DANIEL N. KIRBY, A.B., LL.B., Lec-
turer on Agency 4205 W. Belle pl.

MEDICAL DEPARTMENT.

- J. B. JOHNSON, M.D., Professor Em-
eritus of the Principles and Practice
of Medicine 4244 Washington boul.

- P.GERVAIS ROBINSON, M.D.,LL.D.,
Professor Emeritus of the Principles
and Practice of Medicine 3665 Laclede av.
- J. K. BAUDUY, M.D.,LL.D., Professor
Emeritus of Psychological Medicine
and Diseases of the Nervous Sys-
tem 2808 Olive st.
- ELISHA H. GREGORY, M.D.,LL.D.,
Professor of the Principles of Sur-
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- G.BAUMGARTEN, M.D., Professor of
the Practice of Medicine 5227 Washington av.
- H. TUHOLSKE, M.D., Professor of the
Practice of Surgery and Clinical Sur-
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- T. F. PREWITT, M.D., Professor of
the Principles of Surgery 4915 Berlin av.
- W. E. FISCHEL, M.D., Professor of
Clinical Medicine 2647 Washington av.
- ROBERT LUEDEKING, M.D., Pro-
fessor of the Diseases of Children . 1837 Lafayette av.
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Genito-Urinary Surgery, Treas. . . . 3833 West Pine boul.
- JUSTIN STEER, M.D., Professor of
Clinical Medicine 3126 Washington av.
- W. A. HARDAWAY, M.D.,LL.D., Pro-
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fessor of Physiology, Registrar . . 4105 Washington boul.
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- R. J. TERRY, M.D., Professor of Anat-**
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- JOHN GREEN, M.D., Special Profes-**
sor of Ophthalmology 2670 Washington av.
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Diseases of the Nervous System . . 3138 Pine st.
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- HARVEY G. MUDD, M.D., Professor**
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Clinical Surgery 4144 Washington boul.
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- A. J. STEELE, M.D., Professor of Or-**
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fessor of Diseases of the Ear 5961 Plymouth av.
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fessor of Materia Medica and Phar-
macy 2342 Albion pl.
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Descriptive Anatomy Hotel Berlin.
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on Diseases of the Eye 6024 West Cabanne pl.
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Lecturer on Diseases of the Chest . 3607a Olive st.
ALBERT E. TAUSSIG, M.D., Clin-
ical Lecturer on Medicine 2318 Lafayette av.
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ical Lecturer on Orthopedic Sur-
gery 1301 St. Ange av.

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GIVEN CAMPBELL, Jr., M.D., Clinical Lecturer on Diseases of the Nervous System 3429 Morgan st.

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H. A. GEITZ, M.D., Instructor in Minor Surgery and Bandaging . . 2942 Washington av.

PHIL. HOFFMANN, M.D., Clinical Lecturer on Orthopedic Surgery . 705 N. Channing av.

HENRY S. BROOKES, M.D., Clinical Lecturer on Medicine 3557 Lafayette av.

JESSE S. MYER, M.D., Instructor in Clinical Chemistry and Microscopy . Hotel Berlin.

WILLARD BARTLETT, M.D., Demonstrator of Surgical Pathology . 8865 Delmar boul.

A. D. GHISELIN, M.D., Instructor in Anatomy Webster Groves.

MISSOURI DENTAL COLLEGE.

ELISHA H. GREGORY, M.D.,LL.D., Professor of the Principles and Practice of Surgery 3525 Lucas av.

ALBERT H. FULLER, M.D.,D.D.S., Emeritus Professor of Operative Dentistry Columbia bldg.

- ORION W. BEDELL, M.D.,D.M.D.,
Professor of Dental Pathology . . . 1909 Lafayette av.
- SIDNEY P. BUDGETT, M.D., Pro-
fessor of Physiology and Histology 4105 Washington boul.
- NORMAN B. CARSON, M.D., Pro-
fessor of Oral and Clinical Surgery 3600 Olive st.
- ROBERT J. TERRY, M.D., Profes-
sor of Descriptive Anatomy . . . 2726 Washington av.
- WILLIAM H. WARREN, A.M.,Ph.D.,
Professor of Chemistry 5585 Washington av.
- JOHN H. KENNERLY, M.D.,D.D.S.,
Dean, Professor of Crown and
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D.D.S.,M.D., Professor of Dental
Medicine, Metallurgy and Bacteri-
ology 2009 S. Broadway.
- WALTER M. BARTLETT, D.D.S.,
Professor of Prosthetic Dentistry . 3894 Washington av.
- BENNO E. LISCHER, D.M.D., Pro-
fessor of Orthodontia and Dental
Anatomy Columbia bldg.
- HENRY M. WHELPLEY, Ph.G.,M.D.,
Professor of Materia Medica and
Pharmacy 2342 Albion pl.
- GEORGE A. McMILLEN, D.D.S.,
Professor of Operative Dentistry . Alton, Ill.
- C. A. SNODGRASS, Lecturer on His-
tology 1814 Locust st.
- WILLARD BARTLETT, A.M.,M.D.,
Lecturer on Oral Surgery 3894 Washington av.
- RICHARD T. BROWNRIG, B.S.,
Professor of Dental Jurisprudence 721 Olive st.

HERMAN F. CASSELL, D.M.D.,
Demonstrator of Prosthetic Den-
tistry 2602 Locust st.
JOHN R. PENDLETON, D.D.S., Dem-
onstrator of Operative Dentistry . 1814 Locust st.
BLAND NIXON PIPPIN, D.M.D.,
Demonstrator of Prosthetic Den-
tistry 1814 Locust st.
W. G. TELL, D.D.S., Demonstrator
of Operative Dentistry Century bldg.

NECROLOGY.

GEORGE E. LEIGHTON:

Elected member of the Board of Directors, December 15,
1871.

President of the Board from June 1, 1887, to November 7,
1895.

Died, July 4, 1901.

JAMES E. YEATMAN:

Elected member of the Board of Directors, December 1,
1862.

Died, July 7, 1901.

GEORGE A. MADILL:

Elected member of the Board of Directors, July 23, 1885.

Died, December 11, 1901.

WILLIAM L. HUSE:

Elected member of the Board of Directors, March 29, 1887.

Died, December 28, 1901.

HENRY HITCHCOCK:

Elected member of the Board of Directors, January 13,
1859.

Vice-President of the Board from December 9, 1887, until
his death.

Died, March 18, 1902.

JOHN FISKE:

Appointed University Professor of American History, 1884.

Died, July 4, 1901.

SYLVESTER WATERHOUSE:

Appointed Instructor in 1857; University Professor of
Greek, 1864; Collier Professor of Greek, 1868; Retired
as Emeritus Professor of Greek, June, 1901.

Died, February 12, 1902.

GENERAL STATEMENT.

Washington University, founded in the city of St. Louis, under an Act of Incorporation by the State of Missouri, approved February 22, 1853, is intended to embrace the whole range of University studies except theology, and to afford opportunity of complete preparation for every sphere of practical and scientific life.

By the eighth article of the Constitution, "No instruction, either sectarian or religious, or partisan in politics, shall be allowed in any department of the University; and no sectarian or partisan test shall be used in the election of professors, teachers, or other officers of the University for any purpose whatsoever. This article shall be understood as the fundamental condition on which all endowments, of whatsoever kind, are received." The Constitution also declares the article now quoted "not subject to alteration at any time;" but to guard against all encroachments in this important particular, the Directors have obtained from the General Assembly an amendment to the Charter, by which said article is incorporated in the same, and thereby placed beyond the power of any future Board of Directors. The Act of Amendment, approved February 12, 1857, declares: —

"SEC. 2. No instruction, either sectarian in religion, or partisan in politics, shall be allowed in any department of said University; and no sectarian or party test shall be allowed in the election of professors, teachers or

other officers of said University; or in the admission of scholars thereto, or for any purpose whatever.

“ SEC. 3. It shall be the duty of the Board of Directors of the said University, upon being informed of any violation of the second section of this Act, forthwith to institute an inquiry into the charge or charges that may be preferred, in respect thereof, by any credible person, in writing, against any officer of said University, and if it shall appear that any officer of said University has violated the second section of this Act, the Board of Directors shall forthwith remove any such person so offending from any office which he may then fill in any Department of said University; and such person so removed shall be forever thereafter ineligible to any office in said University.

“ SEC. 4. In case the Board of Directors, upon being notified in writing, by any credible person, of a violation of the second section of this Act, shall refuse or neglect to investigate the charges thereupon preferred against any officer of said University, it shall be competent for the St. Louis Circuit Court or the St. Louis Court of Common Pleas, to compel the Board of Directors, by mandamus, to perform their duty in investigating such charge, and to show their performance of such duty to the satisfaction of the Court having cognizance of the matter, and all proceedings under this section shall be summary, and conducted to a conclusion with as little delay as possible; and the power hereby given to said courts may be exercised by the judge of either of said tribunals in vacation.”

On the 22d of April, 1857, the formal inauguration of Washington University took place with appropriate exercises in University Hall and an oration delivered by Hon. Edward Everett, in the Mercantile Library Hall. An advanced scientific class was organized at that time. An Academy, now known as Smith Academy, had then been in operation about three years. The College and Mary Institute were organized in 1859, and the first class was graduated from the College in June, 1862. The Law School was organized in 1867, the Polytechnic School, now known as the School of Engineering, in 1870, the School of Fine Arts and the Manual Training School in 1879, the School of Botany in 1885. The St. Louis Medical College, founded in 1842, was admitted as a department of the University in 1891, and the Missouri Dental College in 1892. In 1899 the Missouri Medical College, which was founded in 1840, was united with the St. Louis Medical College to form the Medical Department of this University.

To show the principle on which endowments are invited, the fifth, sixth, and seventh articles of the Constitution are here inserted.

“ ARTICLE V.

“ ENDOWMENT OF PROFESSORSHIPS.

“ Any person may endow in whole or in part a specified professorship in the said University; and if, in the opinion of the Board of Directors, said endowment shall be sufficient for the support of said professorship, said professorship shall bear the name of its founder forever,

unless at the time of the endowment he shall otherwise direct.

“ ARTICLE VI.

“ ENDOWMENT OF DEPARTMENTS.

“ Any person may found, by an adequate endowment, a specified department in said University; provided the plan of its organization and its purposes are approved by the Board of Directors, and if said endowment shall, in the opinion of said Board, be sufficient for the perpetual support of said department, it shall bear the name of the founder thereof forever, unless he shall otherwise direct at the time of endowing the same.

“ ARTICLE VII.

“ SPECIFIC FUNDS.

“ All funds and property of whatever nature and description, contributed to the endowment or foundation of a professorship or department, shall forever be faithfully applied to the specific purpose for which contributed and to no other object whatsoever without the written consent of the donor or founder thereof, or his heirs and assigns, and also the written consent of two-thirds of the Directors first had and obtained; provided, however, that said funds and property in this article named shall never be diverted from the purposes of said University.”

WASHINGTON UNIVERSITY

COMPREHENDS:

I. UNDERGRADUATE DEPARTMENT:

INCLUDING THE COLLEGE AND SCHOOL OF ENGINEERING.

Washington Avenue and Seventeenth Street.

II. HENRY SHAW SCHOOL OF BOTANY.

1724 Washington Avenue.

III. ST. LOUIS SCHOOL OF FINE ARTS.

Nineteenth and Locust Streets.

IV. ST. LOUIS LAW SCHOOL.

1417 Locust Street.

V. MEDICAL DEPARTMENT.

1806 Locust Street.

VI. MISSOURI DENTAL COLLEGE.

1814 Locust Street.

The following schools have also been organized under the charter of the University: —

I. SMITH ACADEMY.

Washington Avenue and Nineteenth Street.

CHARLES P. CURD, A.M., Ph.D., Principal.

II. MARY INSTITUTE.

Locust and Beaumont Streets.

EDMUND H. SEARS, A.M., Principal.

III. MANUAL TRAINING SCHOOL.

Washington Avenue and Eighteenth Street.

CALVIN M. WOODWARD, Ph.D., Director.

For particulars in regard to these schools see special catalogues to be had on application to the Principals or Director.

UNDERGRADUATE DEPARTMENT.

THE COLLEGE.

THE SCHOOL OF ENGINEERING.

REMOVAL OF THE COLLEGE AND SCHOOL
OF ENGINEERING,

DURING THE SUMMER OF 1902.

The new grounds and buildings of Washington University have been leased to the Louisiana Purchase Exposition Company, and therefore will not be occupied by the University until after the World's Fair. Temporary quarters for the Undergraduate Department will be provided on the northeast corner of Locust and Beaumont streets, in the old Mary Institute building, and a new building which will be erected immediately adjoining this building, in which the provisions for all the departments will be much better in every way than they have been in the building on Washington avenue.

Through the generosity of Mr. Samuel Cupples, a large part of the machinery and apparatus which will ultimately be placed in the Cupples Engineering Laboratory on the new site, will now be placed in the basement of the new building which is spoken of above. The Board of Directors have also provided that the equipment of every department shall be steadily and rapidly augmented, and that the Faculty of the Undergraduate Department shall be considerably increased. All these provisions will at once extend the usefulness of the institution, and the opportunities which are placed before the students.

It is expected that the students of the Undergraduate Department will, until the opening of the World's Fair, have the use of the new athletic grounds on the new site.

UNDERGRADUATE DEPARTMENT.

INCLUDING THE COLLEGE AND THE SCHOOL OF ENGINEERING.

WINFIELD S. CHAPLIN,
Chancellor.

PROFESSORS.

CALVIN M. WOODWARD,
Professor of Mathematics and Applied Mechanics, and Dean of the School of Engineering.

MARSHALL S. SNOW,
Professor of History and Dean of the College.

FRANCIS E. NIPHER,
Professor of Physics.

Professor of Mathematics and Astronomy.

WILLIAM TRELEASE,
Professor of Botany.

OTTO HELLER,
Professor of German.

JOHN H. KINEALY,
Professor of Mechanical Engineering.

EDWARD H. KEISER,
Professor of Chemistry.

JOHN LANE VAN ORNUM,
Professor of Civil Engineering.

FREDERICK A. HALL,
Professor of Greek.

FREDERICK W. SHIPLEY,
Professor of Latin.

ALEXANDER S. CHESSIN,
Professor of Mathematics.

ARTHUR O. LOVEJOY,
Professor of Philosophy.

Professor of Zoölogy.

GUSTAV HAMBACH,
Adjunct-Professor of Geology.

GASTON DOUAY,
Assistant-Professor of the French Language and Literature.

HARVEY C. GRUMBINE,
Assistant-Professor of English.

ALEXANDER S. LANGSDORF,
Assistant-Professor of Electrical Engineering.

INSTRUCTORS.

HOLMES SMITH,
Instructor in Drawing.

HERMANN VON SCHRENK,
Instructor in Botany.

GELLERT ALLEMAN,
Instructor in Chemistry.

SAMUEL MONDS COULTER,
Instructor in Botany.

AMBROSE P. WINSTON,
Instructor in Economics.

LYMAN F. MOREHOUSE,
Instructor in Physics.

JOHN J. LICHTER,
Instructor in Astronomy.

STUDENTS.

SENIOR CLASS.

NAMES.	COURSE.	RESIDENCE.
Battle, Anita Traviss . . .	Arts . . .	2714 Stoddard st.
Champlin, Edith . . .	Arts . . .	3414 Washington av.
Coste, Miriam . . .	Arts . . .	48 Nicholson pl.
Cutts, Francis Thacher . .	Civ. Eng. . .	3887 Washington boul.
Flanigan, Blanche . . .	Arts . . .	5019 Raymond av.
Forder, Samuel Walker . .	Chem. Eng. . .	St. Louis County.
Freeman, Mary Louise . .	Arts . . .	5347 Bartmer av.
Gladfelter, Edith Edna . .	Arts . . .	4720 N. 20th st.
Jacobs, Max William . .	Arts . . .	2307 S. 9th st.
Kelleter, Paul Delmar . .	Arts . . .	3114 Illinois av.
Muench, Alice Frances . .	Arts . . .	3117 Longfellow boul.
Murphy, Robert Lincoln . .	Civ. Eng. . .	2115 Oregon av.
Pollard, Harry Moses . .	Arts . . .	3015 Washington av.
Schade, Florence Garrell . .	Arts . . .	2221 Benton st.
Scheel, Frederick Engelmann	Arts . . .	Belleville, Ill.
Stephens, Joseph Lafayette .	Arts . . .	1611 Missouri av.
Tittmann, Alice Fabian . .	Arts . . .	2732 Russell av.
Williams, Joseph Adler . .	Arts . . .	4292 Page boul.

Total, 18.

JUNIOR CLASS.

Anderson, Alban Jennings . .	Arts . . .	3858 Windsor pl.
Armstrong, Frederick, Jr. .	Arts . . .	4236a Garfield av.
Black, Albert Eugene . .	Civ. Eng. . .	2800 Caroline st.
Bratney, John Frederick . .	Elec. Eng. . .	1755 Preston pl.
Brey, William Wilson . .	Arts . . .	3429 Bell av.
Codding, Frank Souther . .	Arts . . .	4526 Page boul.
Curtis, Edward Glion . .	Arts . . .	2140 Lafayette av.
Denton, Francis Douglas . .	Mech. Eng. . .	3404 Maple av.
Glasgow, Clemens Englesing	Arts . . .	2847 Washington av.
Hellmuth, Edgar Philip . .	Arts . . .	3107 Brantner pl.

NAMES.	COURSE.	RESIDENCE.
Hunt, Jennie Ida	Arts . . .	74 Vandeventer pl.
Huse, Mary	Arts . . .	4047 West Belle pl.
Kammerer, Edward Charles .	Arts . . .	2724 Dayton st.
Kenney, Willis Pritchard .	Arts . . .	3628 Finney av.
Levy, Maurice Frank . . .	Civ. Eng. . .	4452 Washington av.
Long, Lyda	Arts . . .	1122 Leonard av.
Martin, James Samuel . .	Arts . . .	5620 Minnesota av.
Richey, Guido Hoen . . .	Arts . . .	5555 Cabanne pl.
Samuel, Newman	Arts . . .	3407 Washington av.
Schanti, Hans	Civ. Eng. . .	914 S. 4th st.
Sessinghaus, Eugene Fred- erick	Civ. Eng. . .	2901 Rauschenbach av.
Steidemann, Oscar Franklin .	Chem. Eng. .	4110 N. 11th st.
Weidmann, William Chris- topher	Mech. Eng. .	Belleville, Ills.
White, Philip Benajah . .	Arts . . .	Kirkwood, Mo.
Wilderman, Eunice Emma .	Arts . . .	Belleville, Ills.

Total, 25.

SOPHOMORE CLASS.

Anderson, Biron Corwin	4625 Morgan st.
Bischoff, Julius Montgomery	2714 Russell av.
Clayton, Burkett Sale	Kirkwood, Mo.
Cram, Leroy Vernon	5813 Von Versen av.
Davis, Nell	3620 Washington boul.
Dennis, Arthur Edward	Belleville, Ills.
DeWolf, Herbert	5459 Bartmer av.
Evers, Edward Paul	1861 N. Market st.
Gayler, Linnie	2917 Henrietta st.
Grine, Henry Adam	3627 Weber road.
Hall, William Linscott	531 N. Spring av.
Harris, William John, Jr.	3514 Lucas av.
Hathaway, Frank Bacon	Denison, Texas.
Hoffmann, Philip George	2309 University st.
Jones, Sergeant	4122 Juniata st.
Kayser, Olga	2822 S. Compton av.

NAMES.	RESIDENCE.
Kissack, Alfred Broughton	5709 Vernon av.
Lawton, Rachel	25 N. Spring av.
Lockwood, Richard John	2731 Lawton av.
Marshall, George Lyman	Collinsville, Ill.
Nipher, Edith Cope	3021 Dickson st.
Pritchard, John Charles	4245 Evans av.
Schnurmacher, Stelia	3666 Flora av.
Thomas, Woodlief	Franklin, Tenn
Toensfeldt, Kurt	2203 Park av.
Valier, Charles Eugene	4362 Washington boul.
Woods, Helen Elizabeth	6211 Virginia av.
	Total, 27.

FRESHMAN CLASS.

Aid, Adele	3660 Blaine av.
Allen, George Lewis	26 Westmoreland pl.
Baltzer, Adolf	2506 Benton st.
Barnes, George	3754 Westminster pl.
Boeck, Percy Albert	3706 Delmar av.
Burroughs, Horace Selever	15 Parkland pl.
Cassell, Charles Herbert Louis	2700 Baldwin st.
Clayton, Sarah Sale	Kirkwood, Mo.
Collins, Culvin Ford	3812 Pine boul.
Crecelius, James Victor	1110 Dillon st.
Culbertson, Stephen Roy	1709 Cora av.
Darby, Clifford Torrey	3873 Botanical av.
Daughaday, Hamilton	4492 West Pine boul.
Davis, Frederick Allison	3620 Washington av.
Dawson, James Clifford	Webster Groves, Mo.
Dean, Stanley	4606 Morgan st.
Dowling, Harold	5578 Clemens av.
Drosten, William George	2011 Park av.
Eliot, Samuel Ely	Portland, Oregon.
Farrell, Elizabeth	5072 Minerva av.
Goodloe, William Octavius	4129 Page boul.
Grace, Mary Charity	3309 Easton av.

NAMES.	RESIDENCE.
Gregory, Albert Byron	1637 N. King's h'way.
Hawkins, Carl Leon	3219 Bell av.
Hiemenz, Hilda E.	3520 Magnolia av.
Horner, Winans	5066 Morgan st.
Hough, Effie Junes	Kirkwood, Mo.
Hudson, Will D.	1351 King's h'way.
Kargau, Theodore	1436½ S. 18th st.
Keiser, Edward Love	Thomas, Alabama.
Kellogg, Raymond Clinton	4959 Maple av.
Krause, Arno Dominic	5324 Bartmer av.
Latchinger, John, Jr.	1907 Sidney st.
Lamkey, Frank Denell	2831 Easton av.
Langenberg, Everett Benjamin	3879 Delmar boul.
Leschen, Arthur Adolph	3616 Palm st.
Moore, Thomas Phillip	4946 Berlin av.
Nipher, Elma Frances	1220 Hamilton av.
Ossing, Erwin	1904 Warreu st.
Peet, Jessie Courtney	4122 Morgan st.
Pipkin, Humphrey Harold	Old Orchard, Mo.
Rehm, Norman F.	2727½ Dickson st.
Roberts, Arthur Chester	15 N. Lessingwell av.
Rosenberg, Gabriel Llewellyn	909 Morrison av.
Ross, Thomas William	2801 Gamble st.
Saylor, Richard Morgan	3700 West Pine boul.
Schroeder, Herbert Spencer	1816 La Salle st.
Schuyler, Montgomery	2820 Locust st.
Shryock, Gertrude	5214 Maple av.
Skinker, Alexander Rives	4263 McPherson av.
Skinner, James Douglas	3142 Pine st.
Steinbreder, Harry John	5043 Vernou av.
Stevens, Hirrel	5377 Cabanne av.
Tyler, Harriet Augusta	5717 Bartmer av.
Vaughn, Benjamin W.	4026 Peck st.
Watson, Joel Franklin, Jr.	Mt. Vernon, Ill.
Wiederholdt, Carl Alfred	1211 Morrison av.
	Total, 57.

CANDIDATES FOR DEGREES NOT CLASSIFIED.

NAMES.	RESIDENCE.
Bovie, Elizabeth	3940 West Belle pl.
Clute, Marion Morrill	4808 Hammett pl.
Coates, Mabel S.	Madison, Ill.
Cunningham, Ellen E.	3108 Bell av.
Graf, August Vincent	1325 S. 7th st.
Greensfelder, Ella Belle	Central, Mo.
Holman, Mary	3744 Finney av.
Hudson, Ione Harriet	1820 O'Fallon st.
Johnston, Marshall	Lawrence, Kans.
Kahn, Blanche	5807 Plymouth av.
Miller, Arthur Carl Webster	3628 Cass av.
Patton, Frank Earl	29th and Gamble sts.
Quisenbury, James Franklin	3006 S. Broadway.
Rice, Charles Marcus	3733 W. Pine boul.
Sale, Llewellyn	5115 Weston pl.
Skinner, Edward Holman	2528 N. Grand av.
Trueblood, Alva Cooper	939 Ailanthus st.
Wolfort, Jesse Arthur	1017 Dillon st.

Total, 18.

SPECIAL STUDENTS.

Brandt, John George, Jr.	3803 Washington av.
Day, Alice Colt	3129 Pine st.
Desloge, Jane Pullis	4121 Delmar av.
Eiseman, Alice Louise	4516 Lindell boul.
Feuerbacher, Arthur Henry	1126 Sidney st.
Hellman, Cecile	5025 McPherson av.
Hempelmann, Walter Leo	1438 N. 9th st.
Heron, Grace	4302 West Belle pl.
Heron, Ruth	4302 West Belle pl.
Holman, Charles Henry	3744 Finney av.
Jenkins, Elizabeth Backus	Kirkwood, Mo.
Johnson, Ellen Brooks	4465 West Belle pl.
Kayser, Amie C.	4927 Reber pl.
Lee, Wayne	4400 Westminster pl.

NAMES.	RESIDENCE.
Leyburn, Elizabeth Moseley	3529 Bell av.
Lockwood, Louise Saunders	5710 Cates av.
McMillan, Ruth L.	Kansas City, Mo.
Pfeiffer, Rose L.	4908 Berlin av.
Phillips, Bertha	5617 Clemens av.
Phillips, Gertrude Scollay	5720 Cates av.
Pike, Edward Desloge	Webster Groves, Mo.
Plant, John William, Jr.	3431 Caroline st.
Price, Simeon Taylor, Jr.	4238 Westminster pl.
Schwab, Helen Hannah, A.B., 1899 . .	4393 Westminster pl.
Sharpe, Mary L.	5138 Page av.
Sloan, Isla	4314 Washington av.
Stevens, Benjamin Chandler	2807 Russell av.
Van Vleck, James Brackett, B.S., 1900,	
N. Y. Univ.	4905 Lotus av.
Wolfort, Jesse Arthur	1017 Dillon st.
	Total, 29.

CANDIDATES FOR ADVANCED DEGREES.

FOR THE DEGREE OF MASTER OF ARTS.

Gilbert, Helen,						
A.B., Wash. Univ., 1897 . .	History	. . . .	St. Louis.			
Hatch, Roger E.,						
A.B., Harvard Univ., 1900 . .	English	. . . .	St. Louis.			
Hospes, Cecilia Lizzette,						
A.B., Wash. Univ., 1896 . .	German	. . . .	St. Louis.			
Rumbold, Caroline T.,						
B.L., Smith College, 1901 . .	Botany	. . . .	St. Louis.			
Schwab, Helen Hannah,						
A.B., Wash. Univ., 1899 . .	History	. . . .	St. Louis.			
Somerville, Althea,						
Ph.B., Univ. of Chicago, 1901	English	. . . .	St. Louis.			
Trail, Mary Wilson,						
A.B., Wash. Univ., 1900 . .	History	. . . .	St. Louis.			
Wilde, Frances M.,						
Ph.B., De Pauw Univ., 1895	History	. . . .	St. Louis.			

White, Elizabeth Mary,

A.B., Vassar Coll., 1882 . . Botany St. Louis.

Wittler, William Stephen,

A.B., Wash. Univ., 1898 . . History St. Louis.

FOR THE DEGREE OF MASTER OF SCIENCE.

Selby, Augustine Dawson,

B.S., Ohio State Univ., 1893 Botany St. Louis.

Total, 11.

SUMMARY.

Seniors	18
Juniors	25
Sophomores	27
Freshmen	57
Candidates for degrees not classified	18
	—
	145
Special Students	29
Candidates for Advanced Degrees	11
	—
Total	185

COURSES OF INSTRUCTION PROVIDED IN THE UNDERGRADUATE DEPARTMENT.

GREEK.

Professor Hall. Three times a week.

1. a. Homer: *Iliad*, Books III-VI; *Odyssey*, "The Phœacian Episode."
1. b. Homer: *Odyssey*, Books I-IV.
2. Lysias; Selected Orations; Greek prose composition.
The Work of the Freshman year is designed to strengthen and broaden the work already done in the Preparatory School; to train the student in the structure of a logical and delicate language.
- In Homer Epic forms are constantly compared with corresponding Attic forms. Some attention is given to the characteristics of Homeric times—the forms of government, religion, marriage, views of life.
- In Lysias a study is made of the Moods and Tenses of Greek. The historical setting of the orations is considered.
- Prose composition is more to fix in the mind the forms and principles of syntax than to acquire a readiness in simply writing Greek.
3. Plato's *Apology* and *Crito*.
In the Sophomore Year the subject-matter is given more attention than the structure of the language. The work upon the text is supplemented with lectures upon the schools of Greek philosophy. A careful analysis of the *Apology* is required of students taking this course.
4. Aeschylus' *Prometheus Bound* and *The Seven against Thebes*.
Collateral reading: *Prometheus Unbound* by Shelley; Mrs. Browning's *Prometheus*; Milton's *Paradise Lost*.

In connection with this course lectures will be given concerning the Greek theater, particularly upon buildings, scenery, actors, chorus, costumes, etc.

Emphasis will be laid upon the plays as works of literary art.

5. Demosthenes' De Corona.

The arguments presented by Demosthenes will be compared with those used by Aeschines in his oration against Ctesiphon.

Collateral reading: Burke's speech on the Nabob of Ascot's Debts and Webster's Reply to Hayne.

The conditions which develop oratory will be discussed and considerable attention will be given to the conflict between Athens and Philip.

6. Euripides' Medea and Aristophanes' Clouds.

7. Aeschylus' Agamemnon.

In this course a somewhat critical study is made of the text — the various German and English Editions being compared with the text in use as the text-book of the class.

Collateral reading: Shakespeare's Lady Macbeth and Hamlet.

8. Aeschylus' Choephoroi and the Electros of Sophocles and Euripides.

The theme being the same for the three poets, an excellent opportunity is afforded for comparing and contrasting their methods of treatment.

9. Homer; "The Story of Achilles." Iliad, Books I-IX-XI-XVI-XXIV.

10. Sophocles, the seven extant plays.

11. Homer: Odyssey, Books I-XII.

12. Homer: Odyssey, Books XIII-XXIV.

13. The Athenian Drama.

The extant plays will be read and commented upon. This course consists of lectures and readings. The stereopticon will be used in illustrating buildings, seats, costumes, masks, etc., etc. Students' note-books will be examined monthly and written tests will be required at frequent intervals.

14. The Attic Orators.

Lectures will be given and readings will be assigned.

Courses 1a, 1b, 2, are primarily for Freshmen.

Courses 3, 4, are primarily for Sophomores.

Courses 5, 6, 7, 8, 9, 10, 11, 12, are for Juniors and Seniors.

Courses 13, 14, are open to *all* college students.

For courses 13, 14, *a knowledge of Greek is not necessary.*

A student may take Courses 13 and 14, and yet take another course in the Greek language.

A student who wishes to take Course 14 must take Course 13 or get the instructor's permission in advance.

Courses 1a, 2, 3, 4, 5, 6, 7, are given 1901-1902.

Courses 1b, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, are offered 1902-1903.

For 1902-1903 it is hoped that Juniors and Seniors may take together courses selected from 8-12 in the language.

In case they cannot agree upon the work wished, they will consult the instructor before commencement 1902.

Courses are one-half year in length.

Odd numbers represent the first half year; even numbers, the last half year.

LATIN.

Professor Shipley. Three times a week.

FIRST TERM.

1. Cicero, de Senectute; Terence, Phormio; the writing of Latin.

Attention will be given to a methodical study of the syntax of the moods and tenses, and to the development of the power to read at sight.

3. Horace, the Odes and Epodes. The literary study of the material will be emphasized. In connection with this course will be studied the history of Augustan literature.

5. Plautus, Rudens, Pseudolus, Captivi, Tripummus. (1902-3.) These plays will be made the basis of a study of the Roman Comedy, and, on the linguistic side, of a study of the forms and construction of early Latin.

7. Catullus; Horace, Epistles Bk. I. (1903-4.)

Attention will be given in the study of Catullus to comparison between his lyric ideals and those of Horace, and to his treatment of the various metres. The Epistles of Horace will be studied with special reference to his philosophy of life.

9. Roman Satire. (1902-3.) The reading of the Satires of Horace, Persius, and Juvenal will form the basis of a study of the development of Roman Satire.

11. The Elegies of Tibullus and Propertius; Martial Epigrams. (1903-4.)

SECOND TERM.

2. Livy, Books XXI and XXII. The writing of Latin.

4. Cicero, Selected letters. (1902-3.) A study of the political history and the daily life of the Romans in the last years of the Republic.

6. The private life of the Romans based upon the letters of Pliny. It is the aim of this course to give, by means of lectures and the reading of selected letters of Pliny, a general picture of Roman life in the first century of the Empire. Wherever possible, the work of this course will be illustrated by stereopticon views. Papers on special topics will be prepared by members of the class. (1903-4.)

8. Tacitus: Annals, Agricola, Germania. (1902-3.) In connection with this course will be studied: (1) The early history of the Empire. (2) The history of Britain as a Roman province. (3) The early institutions of the Teutonic peoples as described in the Germania of Tacitus and Cæsar, Book VI.

10. Cicero, Tusculan Disputations and De Finibus. (1903-4.)

12. Quintilian, Books I and X; Horace, Epistles, Book II.

A study of literary education and literary criticism at Rome.

14. (a) Outline course in the history of Latin Literature. *One hour a week.*

(b) General outline course for teachers. *Two hours a week.*

Among other topics the following will be touched upon:—

The Roman pronunciation, metrical reading, syntax of the moods and tenses, palaeography, epigraphy, and the topography of Rome. (1903-4.)

Courses 1, 2, 3, and either 4 or 6 are prerequisites for all further courses in Latin.

ENGLISH.

Assistant-Professor Grumbine. Three times a week.

1. Exercises in Rhetoric and English Composition: The writing of numerous exercises illustrating and applying the principles of rhetoric and composition. Discussion of these principles in the class-room. Criticism of selections from English prose.
2. The forms of English Prose: A continuation of Course 1. Class-room reading and discussion of Macaulay's Essay on Croker's edition of Boswell's Life of Johnson, and of other examples of the forms of English prose.
3. General Introduction to English Literature: Outline of the history of literature; discussion of the principal authors from the earliest times to the eighteenth century. Lectures. Oral and written discussion of class-room work. Supplementary reading.
4. General Introduction to English Literature: A continuation of Course 3. Outline of the literature from the eighteenth century to the present day. Lectures. Oral and written discussion of class-room work. Supplementary reading.
5. Shakspere: The life, the times, the art of Shakspere. Textual criticism of representative plays in the class-room, e. g., King Henry IV. Part I. and Part II.; As You Like It, Hamlet, Antony and Cleopatra, Winter's Tale. Lectures. Oral and written discussions. Supplementary reading.
6. Chaucer: The Life, the times, the art of Chaucer. Reading and criticism of the Canterbury Tales and the Nonne

- Preestes Tale. Elementary studies of the history of the English language. Supplementary reading. Oral and written discussions.
7. Anglo-Saxon (Old English): Outlines of Anglo-Saxon Grammar. Reading of short selections of Anglo-Saxon prose and poetry in Bright's Anglo-Saxon Reader. Sight-reading is encouraged. History of the English language. Supplementary reading in nineteenth century literature.
8. Anglo-Saxon (Old English): A continuation of Course 7. Middle English: A course in Morris and Skeat's Specimens of Early English. Rapid reading is encouraged. History of the English language. Supplementary reading in nineteenth century literature.

GERMAN.

Professor Heller. Three times a week.

- 1-2. Elementary courses. Accidence; Translation from German into English and from English into German; German Conversation. Reading: *Zschokke, der zerbrochene Krug*; *Carmen Sylva, aus meinem Königreich*; *Leander*, Träumereien; *Storm, Immensee*.
Prescribed for Freshmen who did not present German for admission.
- 3-4. German Syntax and Prose Composition; *Joynes-Meissner*; r. *Jagemann*. German conversation, based upon the books read. Reading: *Stifter, das Heldorf*; *Freytag, der Kronprinz*; *C. F. Meyer, Gustav Adolfs Page*; *Schiller, Wilhelm Tell*, and one or two short comedies.
- 5-6. Composition continued. Outline of the History of German Literature from its beginnings to the death of Goethe. Reading: *Lessing, Minna von Barnhelm*; *Goethe, Hermann und Dorothea, Iphigenie auf Tauris*; *Schiller, Ballads; das Lied von der Glocke*; *Wallenstein*.
- 7-8. Outline of the History of German Literature from 1832-1900. Reading: Selected works of *Heine, Uhland, Geibel*,

Auerbach, Hebbel, Keller, Heyse, Wildenbruch, Baumbach, Seidel, Sudermann, Hauptmann, and other writers. Written and oral reports on outside reading.

- 9-10. History of German Literature from the oldest times to the present day. A lecture course.
- 11-12. The metrical works of Goethe. An introduction to the systematic study of a great writer. One and a half terms are devoted to *Faust*, I. and II.; the remaining half-term is given to a more cursory study of Goethe's other masterpieces in verse.

Students are advised to take History 5 before electing German 5, or 9-10.

In place of the works quoted as reading texts for the above courses, others of like degree of difficulty are frequently substituted.

Only eight of these courses can be given each year.

FRENCH.

Assistant-Professor Douay. Three times a week.

- 1-2. Elementary Courses: Pronunciation, Elementary Grammar, reading and translation of easy French prose.
3. French Composition: Reading.
4. Study of Idioms: Oral work, dictation and translation.— Advanced reading.
- 5-6. General introduction to the study of French literature: A survey of its different periods from the origins to the end of the XIX Century. Illustrated by the reading of some of the works which are the most characteristic of the literary evolution of France.
7. The French Drama in the XVII Century.
8. Critics, moralists and orators of the XVII Century.
9. The Romantic Movement in France (with special reference to lyric poetry).
10. The literary movement in France in the latter part of the XIX Century (with special reference to the drama and the novel).

Courses 7-8 and 9-10 are conducted in French — lectures and recitations. They are given in alternate years only. (Courses 7-8 not given in 1901-1902.)

PHILOSOPHY.

Professor Lorejoy. Three times a week.

1. Deductive Logic: Elementary study of the conditions of formal consistency in reasoning, with exercises in the analysis of arguments.
2. Logic of the Sciences: The canons of inductive procedure and general methodology of scientific hypothesis and verification.
3. History of Ancient Philosophy, from the Ionian Schools to the Æo-Platonists.
4. History of Modern Philosophy, to Kant.
5. Theory of Knowledge: An examination of the criteria, limits and degrees of knowledge, with special applications to the principal varieties of real or supposed knowledge; the psychology of judgment and assent; the ethics of belief based on historical study of the more important doctrines concerning these problems since Locke.
6. Elementary Psychology: An introductory analysis of the phenomena of consciousness.

Courses 5 and 6 will be given in alternate years.

7. Ethics: Analysis and criticism of the chief modern types of ethical theory, with an attempt at reconstruction.
8. Seminary: Four contemporary types of systematic philosophy: Evolutionary Realism (Spencer), Abstract Monism (Deussen), Idealistic Monism (Bradley, Royce), Monadism (Renouvier). Open only to seniors and graduate students who have had the equivalent of two years work in philosophy. *Two hours a week.*

ECONOMICS.

Mr. Winston. Three times a week.

1. Principles of Economics.
2. A continuation of 1, with an application of principles to certain practical questions.
3. Economics for Civil Engineering students, including problems in the Economics of Transportation, Municipal Lighting Systems, and Street Railways.
- 4, 5. Questions of the Day. (Trusts, Railway Transportation, Municipal Industries, Labor Legislation, etc., the choice of topics varying from year to year.)
6. Money and Banking.
7. Principles of Sociology.
8. Labor Organizations and questions relating to Labor, such as factory laws, the eight-hour day, employers' liability, workingmen's insurance, etc.

Courses 1 and 2 are open to all college students except Freshmen. Course 3 is open only to engineering students, and is given in alternate years. All other courses are open only to students who have had 1 and 2.

HISTORY.

Professor Snow. Three times a week.

1. England from Henry VII. to the end of the Stuart Period.
2. England; Modern Period.
3. France under the Bourbon Kings to the Revolution.
4. France; The Revolution and the Empire.
5. Mediaeval Germany; The Holy Roman Empire to the Peace of Westphalia.
6. Eastern Europe since the Fall of the Western Empire.
7. Constitutional History; Constitution of the United States; Comparison of American and European Governments.
8. Elements of International Law with Study of Treaties.
Half Course.
9. General European History; Review and Discussion. *Half Course.*

HISTORY OF ART.

Mr. Holmes Smith. Three times a week.

1. Ancient Art: The general principles of art derived from the study of the architecture, sculpture and ornament of ancient Greece. Application of principles to the study of modern works of art.
2. Roman and Mediaeval Art: The study of Roman, Early Christian, Byzantine, Romanesque and Gothic Art. Revivals of Roman and Mediaeval styles in modern times.

MATHEMATICS.

1. Higher Algebra. *Professor Chessin.*
Three times a week.
- 2a. Plane Trigonometry. *Professor Chessin.*
Twice a week.
- 2b. Spherical Trigonometry. *Professor Chessin.*
Once a week.
3. Analytic Geometry. *Professor Chessin.*
Three times a week.
4. Differential Calculus. *Professor Chessin.*
Three times a week.
5. Integral Calculus. *Professor Woodward.*
Three times a week.
6. Theory of Equations. *Professor Chessin.*
Twice a week.
7. Differential Equations. *Professor Woodward.*
Twice a week.
- 8-9. Descriptive Geometry. *Professor Chessin.*
Two lectures a week. Drawing two hours a week.

APPLIED MECHANICS.

Professor Woodward. Three times a week.

1. Graphical Statics, Stress Diagrams for Frames, Trusses, and Bridges analyzed and drawn to scale.
2. General Principles of Statics and Dynamics with illustrative examples.
3. Rotation of Rigid Bodies. Character and distribution of Stress. Strength and Stiffness of Girders and Shafts.
4. Kinematics, Mechanism, including the general theory of transmission of energy by Gearing, Liquids, Belts, etc., with and without friction.
5. Deflection of Beams and Girders and the Torsion of Shafts.

PHYSICS.

Professor Nipher and Assistants.

1. Elementary Mechanics, including the Mechanics of Fluids. *Two lectures or recitations and two hours of laboratory work a week.*
2. Heat and Light. *Three lectures or recitations and three hours of laboratory work a week.*
Optics. *Two lectures or recitations and two hours of laboratory work a week.*
3. Electricity and Magnetism. *Three lectures or recitations and three hours of laboratory work a week.*
- 4, 5. Laboratory instruction in Electrical Measurements, including measurement of resistances, E. M. F. of batteries, the calibration of amperemeters and voltmeters, electrolytic measurements, magnetic determinations, heating effect of currents, electrical determinations of Joule's equivalent. *Six hours a week.*
6. Introduction to the mathematical theory of Electricity and Magnetism, including the theory of Potential; capacity of bodies; energy of electrical systems; electrometers and electrostatic voltmeters, theory of magnetic measure-

ments, magnetic fields due to electric currents, electrical induction, theory of dynamos and electric motors, alternating currents, tri-phased systems. *Three hours a week.*

7. Dynamo-electric Machinery, including a discussion of the theory of series, shunt and compound dynamos and motors, conditions of efficiency of dynamos and motors, conditions of economic operations, transformers and transformer systems, electric lighting stations, electric railways, power stations, and secondary batteries. *Three lectures a week.*
8. Laboratory work in testing electrical machinery. *Three hours a week.*
9. Designing of electrical machinery. *Six hours a week.*
10. Electrical Transmission of Power and Light, and the study of the designing of machinery for specific output and economy. *Three hours a week of lectures and two hours of laboratory work.*
- 11-12. Designing of Electrical Machinery. *Six hours a week.*
- 13-14. Laboratory Work. *Six hours a week.*

CHEMISTRY.

Professor Keiser and Assistants.

- 1-2. General Descriptive Chemistry. Lectures and laboratory work upon the preparation and properties of the more important elements and compounds. General laws and principles of chemistry. *Two lectures and two hours of laboratory work a week.*
3. Qualitative Analysis. Systematic methods of separating and detecting the bases and acids. Laboratory work. *Six hours a week.*
4. Quantitative Analysis. Methods of gravimetric and volumetric analysis. Laboratory work. *Six hours a week.*
- 5-6. Organic Chemistry. Lectures upon the chemistry of the carbon compounds. Preparation, properties, and transformations of typical compounds. Methods of determin-

- ing chemical constitution; relationships between classes of compounds. General laws and theories. *Three hours a week.*
- 7-8. Laboratory Work in Organic Chemistry. Preparation and study of the transformations of typical compounds. *Six or twelve hours a week.*
- 9-10. Advanced Quantitative Analysis. Laboratory Work. Analysis of commercial and industrial materials and products. Assaying. Sanitary examinations of foods, water, etc. Gas analysis. *Six or twelve hours a week.*
11. Laboratory work in Physical Methods. Determination of molecular weights by the freezing point and boiling point methods. *One hour a week.*
12. Chemical Seminary. Advanced Workers and Instructors meet to report upon and discuss articles in current chemical journals. *One hour a week.*
13. Mineralogy. Crystallography and the determination of minerals by means of the blowpipe. *Three hours a week.*
14. Descriptive mineralogy. Lectures and laboratory work. *Three hours a week.*
- 15-16. Industrial and Engineering Chemistry. Lectures and Laboratory work. *Two hours a week.*
- 17-18. Research work in Theoretical or Applied Chemistry. Investigation of some subject in pure or applied chemistry. Laboratory work and reading of original papers and memoirs. Preparation of thesis.

BOTANY.

Professor Trelease and Assistants. Three times a week.

1. Elementary Morphology and Organography, with reference to Ecology and Systematic Botany. Lectures and demonstrations. *Professor Trelease.*
2. Elementary Anatomy and Phanerogamic Botany. Laboratory work. *Mr. Coulter.*
3. Synoptical study of the Cryptogams. Laboratory work. *Dr. von Schrenk.*

4. A special study of some group of Cryptogams.
Dr. von Schrenk.
5. Methods of Vegetable Histology. Laboratory work.
Mr. Coulter.
6. Histology and Morphology of the Higher Plants. Laboratory work.
Mr. Coulter.
7. A laboratory study of the minute anatomy of the lower Cryptogams.
Dr. von Schrenk.
8. Technical Microscopy of Timbers. Laboratory work. *Two hours a week.*
Dr. von Schrenk.
9. Economic Botany. Lectures and laboratory demonstrations.
Professor Trelease.
- 10-11. Applied Mycology. Laboratory work. *Dr. von Schrenk.*
- 12-13. Garden Botany. Laboratory study of cultivated plants.
At the Botanical Garden.
- 14-15. Vegetable Physiology. Laboratory work. *Mr. Coulter.*
- 16-17. Bacteriological Technique. Laboratory work.
Dr. von Schrenk.
18. Physiographic Ecology. Lectures and Field work.
Mr. Coulter.

It is intended that course 1 shall always be followed by course 2, the two being preparatory to other electives. For the present, unless special reason to the contrary exists, courses 1 and 2 only are given each year, the remaining electives being offered in alternate years as follows: —

For 1901-1902.

First term, courses 1, 5, 8, 10 and 16.

Second term, courses 2, 6, 7 and 11.

For 1902-1903.

First term, courses 1, 14 and 16.

Second term, courses 2, 15 and 17.

Students who have taken courses 1 and 2, or have had their equivalent elsewhere, are admitted to any of the other elementary electives which can be taken without conflict with other university work; but students who desire to equip themselves as

botanists are advised to take the electives as nearly as possible in the order in which they are offered, and on the completion of the elective courses should expect to devote not less than ten hours a week through an entire year to some piece of research work, selected under the advice of the Professor of Botany.

Special graduate study or investigation is planned to meet the needs of students, so far as the facilities of the School of Botany and the Botanical Garden permit.

ASTRONOMY.

Mr. Lichter.

1. Descriptive Astronomy. Lectures and recitations, with occasional work at the Observatory. *Three times a week.*
2. Practical Astronomy. Applications of Astronomy in determination of time, Latitude, Longitude and Azimuth. *Three times a week.*

Spherical Trigonometry will be required for entrance to either of these courses.

ZOOLOGY.

Mr. Coulter. Three times a week.

1. Elementary Zoology. A course of lectures and laboratory exercises upon representatives of the various groups of animals, including their anatomy, life history, distribution and habits.
2. Elementary Zoology. A continuation of Course 1.
3. Comparative Anatomy of Vertebrates. Lectures, demonstrations and laboratory exercises.
4. Insecta. A course of lectures and laboratory exercises on the life history, habits, distribution and classification of the groups of insects, with occasional field trips for collection and investigation.

GEOLOGY.

Adjunct-Professor Hambach. Three times a week.

1. General Course.
- 2-3. Elementary and Systematic Geology.
- 4-5. Palaeontology.
6. Petrography.

DRAWING.

Mr. Holmes Smith.

1. Freehand Drawing. The observation and analysis of form. Freehand Drawing in outline of objects and groups of objects, both from the objects themselves, from memory, and from description. The elements of perspective as applied to freehand drawing. *Six hours a week.*
2. The use of drawing instruments. The construction and use of scales. Elementary Geometrical Drawing. Projection of simple solids. Single line lettering. *Three hours a week.*
3. Geometrical Drawing. Those problems in geometrical construction that are needed in descriptive geometry, structural drawing and machine design. Practical Freehand Lettering. *Four hours a week.*
4. Machine Drawing. The making of preliminary sketches with measurements of machines and parts of machines. Working Drawings. Tracings. Blue Printing. Isometric Drawing. Practical Freehand Lettering. *Six hours a week.*

CIVIL ENGINEERING.

Professor Van Ornum and Assistants.

1. Elementary Surveying. The use and adjustment of all the ordinary surveying instruments; land surveying; problems in linear surveys, in laying out railway curves, etc.; topographical surveying by the transit and stadia method and also by the plane table. *Two recitations and six hours field practice a week.*

- 2-3. Surveying in the Field. *Three weeks devoted continuously to field practice.* This practicing includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a system of triangulation and levels which forms a part of the work of the survey. A hydrographic survey, with locations by one of the most approved methods, is made, and a railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time and azimuth, and various other special problems are worked out practically. For this work the class goes to a suitable point at a distance from the city the third Monday before the beginning of the college year. A map of this survey is drawn after return from the field.
4. Stereotomy. The application of Descriptive Geometry to stone cutting, including groined, cloistered and skew arches, etc. *One recitation and three hours drawing a week.*
5. Higher Surveying. Hydrographic, mining, city and geodetic surveying, with the mathematical principles involved and the practical methods of operation used in the field; earth-work computations, etc. *Three hours a week.*
6. Drawing. To accompany Courses 2 and 5. *Nine hours a week.*
7. Stresses in Framed Structures. Analytical and graphical determinations of stresses in various styles of roof trusses and of highway and railway bridges for distributed and concentrated, fixed and moving loads. *Three hours a week.*
8. Structural Drawing. To accompany Course 7. *Nine hours a week.*
9. Engineering Materials. A review of the principles of mechanics, relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of the processes of manufacture and methods of testing the strength of materials and a dis-

cussion of the essential properties of the more common materials of engineering construction. *Three hours a week.*

10. Testing Laboratory Practice. Experimental tests made by the student on the strength of various kinds of engineering materials. *Six hours a week.*
11. Testing Laboratory Practice. Experimental tests made by the student on the strength of various kinds of engineering materials. For students in mechanical and electrical engineering. *Three hours a week.*
12. Contracts and Specifications. The law of contracts as applied to engineering work, together with typical forms of specifications. *One hour a week.*
13. Hydraulics. Hydrostatic and hydraulic theory, with the application of principles developed to the flow of water through orifices, pipes, etc.; the determination of water-power; the measurement of velocities and discharge. *Three hours a week.*
14. The Designing of Framed Structures. An analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs. *Three hours a week.*
15. Structural Design. Work in the draughting room to accompany Course 14, and involving complete details. *Nine hours a week.*
16. Water and Sewerage Systems. The collection and distribution of potable waters, as modified by various conditions of supply and service. The practical designing of systems of sewerage and drainage. Methods of sewage-disposal. Outline of irrigation methods. Water rates and special assessments. *Three hours a week.*
17. Railway Engineering. Reconnaissance, preliminary and location surveys considered in detail; railway construction and maintenance of way; standards of permanent construction; the economic theory of railway location. *Three lectures a week.*

18. **Road Engineering.** The location, drainage construction and maintenance of streets and roads; consideration of the different paving materials in connection with their particular characteristics and their adaptability and adequacy under various conditions of service; the cost and life of pavements. *Three lectures a week.*
19. **Masonry Structures, Tunneling and Explosives.** The theory of design and the construction of foundations, retaining walls, dams, arches, chimneys, bridge piers, etc., together with the study of the materials involved. Methods of tunneling through different materials. The nature and use of explosives. *Three hours a week.*
20. **Water and Sewage Purification.** A course of four weeks on the sanitary analysis of water and sewage under Dr. Kelser in the chemical laboratory, followed by a study in detail of methods and adequacy of different systems of water and sewage purification. Students intending to elect this course must elect Bacteriology for the preceding term. *Three lectures a week.*
21. **Suspension, Cantilever, Arch and Lift Bridges.** Analytical study of stresses and principles governing the design and erection of these styles of structures; consideration of typical examples of such bridges. *Three lectures a week.*
22. (a) **Steel Framework of Buildings.** The various systems of construction for tall office buildings analytically considered, with the principles and details of design of this increasingly important class of structures.
(b) **Combination Construction.** The principles involved in structures built of steel and concrete in combination; the details of the most important systems of such construction. *Three lectures a week.*
23. **Harbors, Rivers and Canals.** The regimen of rivers; tides and tidal currents; the application of hydraulic and structural principles to the design, construction and maintenance of harbors, rivers and canals. *Three lectures a week.*

24. Engineering Design. Draughting and design supplementary to Courses 12, 14, 16, 17, 18, 19, 20, 21, 22 and 23. *Nine hours a week.*
25. Graduation Thesis. A complete study or design, involving original investigation or experiment.

MECHANICAL ENGINEERING.

Professor Kinealy and Assistants.

1. Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work and trains of mechanism. *Three hours a week.*
2. Machine Designing. Study of the principles. *Three hours a week.*
3. Machine Designing and Mill Engineering. Shafting, gearing, belts and ropes, mill and factory construction. *Three hours a week.*
4. Elementary Steam Engineering. Elements of thermodynamics and the theory of the steam engine; types of engines; valves and valve diagrams; indicator cards; boilers and chimneys. *Three hours a week.*
5. Machinery Drawing. Work in the drawing-room to accompany Course 1. *Three hours a week.*
6. Machinery Drawing. Details of the steam engine; link motions and valve diagrams. *Three hours a week.*
7. Mechanical Laboratory. Standardization of instruments; oil testing. *Three hours a week.*
8. Mechanical Laboratory. Lining up and adjusting the steam engine; use of the indicator; valve setting; tests of the steam engine. *Three hours a week.*
9. Advanced Steam Engineering. Thermodynamics; application of thermodynamics to steam and other heat engines. *Three hours a week.*
10. Steam Engine Designing. *Three hours a week.*
11. Boiler and Chimney Designing. *Three hours a week.*
12. Heating and Ventilation. *Three hours a week.*

13. Pumps, Cooling Towers, Air Compressors, Refrigeration Machinery, etc. *Three hours a week.*
14. Engine Designing. Work in the drawing-room to accompany Course 10. *Six hours a week.*
15. Boiler Designing. Work in the drawing-room to accompany Course 11. *Three hours a week.*
16. Mechanical Laboratory. Tests of the steam and gas engines. *Six hours a week.*
17. Mechanical Laboratory. Boiler tests; visits to manufacturing establishments. *Six hours a week.*
18. Thesis. A complete study or design, involving original investigations or experiments.

ELECTRICAL ENGINEERING.

Assistant-Professor Langsdorf and Assistants.

1. General introduction to the study of electrical machinery. Electrical units, and the characteristics of dynamo-electric machinery. This course is especially designed for students in Civil Engineering. *Three hours a week.*
2. Extension of Course 1. Treatment of the subject in greater detail, and an introduction to the elements of alternating currents. *Three hours a week.*
3. Laboratory work with direct current machinery. Determination of characteristics of direct current generators and motors. *Three hours a week.*
4. Lectures and recitations on the design of direct current machinery; generators, motors, and electro-magnets. *Three hours a week.*
5. Lectures and recitations on the design of alternating current machinery. *Three hours a week.*
6. Work in drawing room to accompany Course 4; detail design of machine of specified performance. *Six hours a week.*
7. Work in drawing room to accompany Course 5; detail design of a polyphase generator, motor, or transformer. *Six hours a week.*

8. Laboratory work; efficiency and core loss tests, determination of wave forms, etc. *Six hours a week.*
9. Laboratory work with alternating currents; special investigations. *Nine hours a week.*
10. Lectures on methods of electrical testing, and calculation of sizes of wires for distributing networks. *Two hours a week.*
11. Lectures on street railway working. Generation, distribution, and utilization of power. *Two hours a week.*
12. Detailed treatment of some engineering project, involving the preparation of estimates and specifications, together with the presentation of an argument supporting the solution adopted. *Two hours a week.*

In addition to the above the following courses given in the Medical Department of the University are open to students in the College, and will be credited towards a medical degree for those students who enter the Medical College later.

ANATOMY.

- a.* Osteology and Syndesmology: Lectures and Laboratory Work. *Three hours a week.* *Professor Terry.*
- b. Splanchnology and Neurology: Anatomy of the Thoracic and Abdominal Viscera, and Brain and Spinal Cord. Lectures and Demonstrations. *Three hours a week.* *Professor Terry.*
- c. Myology, Angiology, and Neurology: Anatomy of the Muscular System, of the Circulatory System, and of the Distribution of Peripheric Nerves. Lectures and Demonstrations. *Three hours a week.* *Dr. Blair.*

* The letters *a*, *b*, etc., refer to the announcement of courses as given in the catalogue of the Medical Department, to which students are referred for additional details.

d, e. Practical Anatomy: Dissection of Typical Vertebrates and Human Dissection. Three afternoons a week.

Professor Terry and Dr. Blair.

f, g. Special Dissections: Work arranged by the teachers in regard to the wants and predilections of the individual student. These courses can be taken only after d and e have been certified. Three afternoons in the first term and two afternoons in the second term.

Professor Terry and Dr. Blair.

HISTOLOGY.

a, b. Laboratory Work with Explanatory Lectures. Six hours a week.

Professor Budgett.

PHYSIOLOGY.

a. First Half of Physiology. Lectures and Demonstrations. Three hours a week

Professor Budgett.

b. Second Half of Physiology. Lectures and Demonstrations. Three hours a week.

Professor Budgett.

c. Laboratory work in Physiological Chemistry. Four hours a week.

Professor Budgett.

PATHOLOGY AND BACTERIOLOGY.

Lectures on Bacteriology. One hour a week.

Professor Ravold.

g. Laboratory Course in Bacteriology. Four hours a week.

Professor Ravold.

HYGIENE.

Lectures and Demonstrations on Hygiene and Sanitary Medicine.

Two hours a week.

Professor Ravold.

FORENSIC MEDICINE.

A Course of Lectures. *Three hours a week.* Comprising the following subjects: Chemistry and Detection of Poisons, by *Prof. Warren.* Symptoms and Treatment of Poisoning, by *Dr. Tuttle.* Microscopy of Blood Stains, Hair, etc., by *Prof. Budgett.* Abortions, Diagnosis of Recent Labor, Rape, etc., by *Prof. Schwarz.* Legal Aspects of Insanity, Injuries to the Nervous System, Alcoholism, Sunstroke, etc., by *Prof. Fry.* Legal Aspects of Traumatism and Surgical Injuries; Post-mortem Examinations, by *Dr. Kodis.* Medical Jurisprudence, by *Prof. Nagel.*

THE COLLEGE.

ADMISSION.

Candidates for admission to the College will present themselves for examination on Monday, June 17, 1901, in room No. 8, east wing of the University Building, 1704 Washington avenue, at 9 o'clock a. m. A second examination will be held on Tuesday, September 24, at the new temporary site of the University, on the north-east corner of Locust and Beaumont streets, for such candidates as cannot be present in June.

DIVISION OF THE EXAMINATION.

A candidate for admission may, at his option, take the entire examination at one time; or he may divide it (1) between two years, or (2) between June and September of the same year; provided he is prepared at the first examination in not less than four of the subjects named in the requirements for admission.

TESTIMONIALS.

All candidates for admission are required to furnish testimonials of good moral character, and students from other colleges are required to present certificates of honorable dismissal.

Candidates who divide the examination must furnish their testimonials at the time of their final examination for admission.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

Candidates for admission presenting certificates signed by the Principals of the following schools will be admitted without examination to the Freshman Class: —

Smith Academy, St. Louis.

Mary Institute, St. Louis.

Hosmer Hall, St. Louis.

Central High School, St. Louis.

Kirkwood High School, Kirkwood, Mo.

Webster Groves High School, Webster Groves, Mo.

Central High School, Kansas City, Mo.

St. Joseph High School, St. Joseph, Mo.

Chillicothe High School, Chillicothe, Mo.

Blees Military Academy, Macon, Mo.

Atlantic High School, Atlantic, Iowa.

Plattsmouth High School, Plattsmouth, Neb.

Township High School, Evanston, Ill.

Township High School, Joliet, Ill.

East St. Louis High School, East St. Louis, Ill.

Evansville High School, Evansville, Ind.

All other candidates for admission will be examined in the following subjects: —

1. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals, proper construction of sentences; clearness and conciseness of expression.

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*; *Shakespeare's Merchant of Venice*;

Addison's Roger de Coverley papers from *The Spectator*, Goldsmith's *Vicar of Wakefield*, George Eliot's *Silas Marner*, Longfellow's *Evangeline*, and Emerson's essays on *Friendship, Manners, Compensation, History, Character*.

II. *Algebra*, including radicals and equations of the second degree,

III. *Elementary Plane and Solid Geometry*. Wells' or Wentworth's Geometry or an equivalent.

IV. *Latin*. Grammar, four books of Cæsar, seven orations of Cicero, and six books of the *Aeneid* of Virgil. Prose Composition.

**Greek*: Xenophon's *Anabasis*, Books I-IV.

Homer's *Iliad*, Books I-III, omitting catalogue of ships in Book II.

Composition, First forty exercises in Woodruff's *Exercises in Greek Prose Composition*.

The examination will be based upon the supposition that the candidate has studied Greek three school years, reciting not less than four times a week. The questions asked will concern ordinary constructions, common conditional sentences, indirect discourse, forms, accents, etc.

In Homer the epic forms with their corresponding Attic forms will constitute an important part of the examination. The candidate should be able to separate lines of Homer into feet, marking the quantity of each syllable.

In composition involved sentences will not be given, but the candidate should show ability to write simple connected narrative.

* Greek is not required for admission except from candidates who intend to continue the study in College.

Substitution. Other Books of Homer, either from the Iliad or the Odyssey may be presented for those named above, if the request is made in writing not later than June 1st previous to the examination.

Woodruff's Exercises in Greek Prose Composition is mentioned only to give an idea of the amount of work one is supposed to have had. Any of the various works upon Greek prose composition will be acceptable.

V. *Modern Language.* Either French or German at the option of the candidate; facility in reading ordinary prose at sight and knowledge of elementary grammar shown by the ability to translate easy sentences from English into French or German.

VI. *History.* Of the United States and of England, such as is found in any text-book on history intended for the use of preparatory schools; of Greece and Rome, such as is found in Pennell's or Smith's Small Histories.

VII. *Elementary Physics.* Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-Book of Physics."

SPECIAL STUDENTS.

Special Students may be admitted to one or more courses in the college upon the following conditions: —

1. That evidence of proper preparation, satisfactory to the committee and to the instructors concerned, be submitted before admission to any course or courses.
2. That candidates for degrees who fail in the work of the regular courses shall not have the privilege of becoming Special Students, unless such failure shall come from physical inability to do the required work.
3. That Special Students shall not be regarded as candidates for a degree.

All matters concerning Special Students are referred to a standing committee of the Faculty, which is composed of Professors Snow, Keiser and Lovejoy. Application should be made to Professor Snow, Chairman.

ARRANGEMENT OF STUDIES IN THE COLLEGE.

FRESHMAN YEAR.

**Prescribed Studies.*

English, Courses 1 and 2.

German, Courses 1 and 2, for those who present French for admission.

French, Courses 1 and 2, for those who present German for admission.

Elective Studies.

In addition to the prescribed studies, every Freshman is required to take each term elective studies amounting to *three full courses*. No Freshman may elect more than one course in the same subject without the consent of the Dean.

* The figures indicate the number of the Courses of Instruction.
See pp. 34-57.

The following courses are open to Freshmen: —

- Greek, 1, 2.
- Latin, 1, 2.
- English, 1, 2.
- German, 1, 2.
- French, 1, 2.
- History, 1, 2.
- Mathematics, 1, 2.
- Drawing, 1, 2.
- Physics, 1, 2.
- Chemistry, 1, 2.
- Botany, 1, 2.
- Zoölogy, 1, 2.

A Freshman who is qualified to take a higher course in any study named above may do so, with the permission of the instructor in the course and the Dean of the College.

SOPHOMORE AND JUNIOR YEARS.

The prescribed work of the Sophomore and Junior Years consists of: —

English, Courses 3, 4 and 5, 6.

Besides the prescribed courses every Sophomore and every Junior is required to take each term *four elective courses*, or an equivalent amount of courses and half courses.

SENIOR YEAR.

Eight courses, all elective, are required in the Senior year, and a thesis to be handed in by June 1st.

CHOICE OF STUDIES.

Every student is required to give notice in writing to the Dean of the College on the first day of each term of his choice of studies for that term.

Changes may be made only by permission of the Dean, to whom application must be made in writing, with a full statement of reasons.

No student will be allowed to elect any course for which his previous training has not fully prepared him.

REQUIREMENT FOR THE DEGREE OF BACHELOR OF ARTS.

The satisfactory completion of thirty-eight courses is necessary for the degree of Bachelor of Arts.

A course in any study is one term's work with three recitations or lectures a week, or their equivalent in laboratory work.

THE SCHOOL OF ENGINEERING AND ARCHITECTURE.

CONDITIONS OF ADMISSION.

Candidates for admission to the School of Engineering will present themselves for enrollment or examination on Monday, June 16, 1902, in room No. 8, east wing of the University Building, 1704 Washington Avenue, at 9 o'clock a. m. Candidates who cannot be present in June may present themselves on Tuesday, September 23, at the new temporary site of the University, in the main building on the northeast corner of Locust and Beaumont Streets.

Students may enter either on Certificate or by Examination.

ENTRANCE ON CERTIFICATE.

Graduates of the following schools will be admitted without examination, provided they bring certificates from the Principal that they have met the requirements to the Freshman Class as printed below. These schools have been inspected and examined by a representative of the Faculty and placed upon the approved list. Additions will be made to this list as rapidly as schools apply for such recognition and are found to be qualified: —

Central High School, St. Louis.

Smith Academy, St. Louis.

Manual Training School, St. Louis.

Central High School, Kansas City, Mo.
Manual Training High School, Kansas City, Mo.
High School, St. Joseph, Mo.
Township High School, Evanston, Ill.
Township High School, Joliet, Ill.
High School, East St. Louis, Ill.
High School, Cairo, Ill.
High School, Chillicothe, Mo.
Blees Military Academy, Macon, Mo.
High School, Kirkwood, Mo.
High School, Webster Groves, Mo.
High School, Atlantic, Iowa.
High School, Plattsmouth, Neb.
High School, Evansville, Ind.

**ENTRANCE BY EXAMINATION UPON SUBJECTS NAMED
BELOW.**

This examination will occupy two days and will be entirely in writing.

Candidates for admission may, at their option, take the entire examination at one time; or they may divide it between two years, or between June and September of the same year, provided they are prepared at the first examination in not less than four of the subjects named in the requirements for admission.

All candidates for admission are required to furnish testimonials of good moral character, and students from other collegiate institutions, who expect to enter in advance of the Freshman Class, are required to present certificates of honorable dismissal.

REQUIREMENTS FOR ADMISSION TO THE FRESHMAN CLASS.

- I. *Elements of English.* Neat and readable handwriting; correct spelling, punctuation and use of capitals; proper construction of sentences; clearness and conciseness of expression.

Candidates are advised to study the following: A grammar containing a clear and simple system of analysis of sentences such as is found in *Longman's School Grammar*; Shakespeare's *Merchant of Venice*, Addison's Roger de Coverley papers from *The Spectator*, Goldsmith's *Vicar of Wakefield*, George Eliot's *Silas Marner*, Longfellow's *Evangeline*, and Emerson's essays on *Friendship, Manners, Compensation, History, Character*.

- II. *Algebra*, including radicals and equations of the second degree.

- III. *Elementary Plane and Solid Geometry.* Wells' or Wentworth's *Geometry* or an equivalent.

- IV. *Language.* a, b, c, or d.*

a. **FRENCH.** Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into French.

b. **GERMAN.** Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into German.

* It is assumed that a thorough course in any one of these languages extending over two years of, say, thirty-five weeks each, with four or five full hours a week, or their equivalent, will be sufficient to prepare a candidate to meet the requirement, in a single language.

c. SPANISH. Facility in reading ordinary prose at sight, and a knowledge of elementary grammar shown by the ability to translate easy sentences from English into Spanish.

d. LATIN. In place of a modern language an acquaintance with Latin acquired by two years' successful study will be accepted. This should comprise: First, in grammar, a good knowledge of etymology and syntax, special attention being given to inflections and the construction of cases and moods; second, the translation of four books of Caesar or equal amounts of such equivalents as Nepos and Sallust. Reading of easy Latin at sight may be substituted for two books of Caesar.

V. History. Of the United States and of England such as is found in any text-book on history intended for the use of preparatory schools.

N. B.—In place of the work in the History of England, an equivalent amount of work in the history of some other country, in Ancient History, or in General History will be accepted.

VI. Elementary Physics. Either *a* or *b*.

a. As much as is contained in such books as Gage's "Introduction to Physical Science," or Appleton's "School Physics."

b. An amount of laboratory work equal to the first forty experiments in Hall and Bergen's "Text-book of Physics."

COURSES OF STUDY IN THE SCHOOL OF ENGINEERING AND ARCHITECTURE.

The Courses of Study are six in number : —

- I. CIVIL ENGINEERING.
- II. MECHANICAL ENGINEERING.
- III. ELECTRICAL ENGINEERING.
- IV. CHEMICAL ENGINEERING.
- V. SCIENCE AND LITERATURE.
- VI. ARCHITECTURE.

The arrangement of studies in the several Courses of Study varies from time to time as need arises. All the studies for each Course are prescribed ; there is no choice except as indicated. For the year 1902-3 they will be as given on the following pages : —

I. CIVIL ENGINEERING.

FRESHMAN YEAR.

FIRST TERM.

English, 1 (Composition).	Mathematics, 2a (Plane Trigonometry).
German, 1 (Elementary Course)	Chemistry, 1 (General Descriptive).
or	Drawing, 1 (Free-Hand).
French, 1 (Elementary Course).	Drawing, 2 (Instrumental, and Lettering).
Mathematics, 1 (Higher Algebra).	Shop, 1 (Wood Working).

SECOND TERM.

English, 2 (Forms of Prose).	Physics, 1 (Elementary Mechanics).
German, 2 (Elementary Course), or	Chemistry, 2 (Descriptive Chemistry).
French, 2 (Elementary Course).	Drawing, 3 Geometrical, and Lettering).
Mathematics, 2b (Spherical Trigonometry).	Shop, 2 (Pattern Work and Molding).
Mathematics, 3 (Analytical Geometry).	

SOPHOMORE YEAR.

FIRST TERM.

German, 3 (Reading, Composition, etc.), or	Physics, 2 (Heat and Light)
French, 3 (Reading, Composition, etc.).	Chemistry, 3 (Qualitative Analysis).
*Mathematics, 3 (Analytical Geometry).	Drawing, 4 (Mechanical, and Lettering).
Mathematics, 8 (Descriptive Geometry).	Shop, 3 (Forge and Machine Work).

SECOND TERM.

**Civil Engineering, 1.	Mechanics, 1 (Statics).
*Mathematics, 4 (Differential Calculus).	Physics, 3 (Electricity and Magnetism).
Mathematics, 9 (Descriptive Geometry).	Shop, 4 (Machine Shop).

Civil Engineering students will take Civil Engineering 2 during the summer vacation.

* Mathematics 3 and 4 will occur one term earlier in 1903-4.

** For a full description of the courses of instruction in Civil Engineering, see below.

JUNIOR YEAR.

FIRST TERM.

Civil Engineering, 4.	*Mathematics, 5 (Integral Calculus).
Civil Engineering, 5.	Mechanics, 2 (Statics, Distribution of Stress).
Civil Engineering, 6.	
Civil Engineering, 1 (Electric Machinery).	Physics, 4 (Electrical Measurements).

SECOND TERM.

Civil Engineering, 7.	Mechanical Engineering, 4 (Steam Engine).
Civil Engineering, 8.	Mechanics, 3 (Unbalanced Forces).
Civil Engineering, 9.	
Civil Engineering, 10.	
Civil Engineering, 12.	

Civil Engineering students will take Civil Engineering 3 during the summer vacation.

SENIOR YEAR.

FIRST TERM.

Civil Engineering, 13.	††Elective (One to be chosen).
Civil Engineering, 14.	(a) Civil Engineering, 17.
Civil Engineering, 15.	(b) Civil Engineering, 18.
Civil Engineering, 16.	(c) Economics, 3 (Transportation, etc.).
Mechanics, (Deflection, and Torsion).	(d) Physics, 6 (Mathematical Theory of Electricity).
	(e) Astronomy, 1 (Descriptive Astronomy.)
	(f) Botany, 16 (Bacteriology).

* Mathematics 5 will occur one term earlier in 1904-5.

†† Any Elective may be omitted when the number of students presenting themselves for it is less than five.

SECOND TERM.

Civil Engineering, 19.	††Elective (one to be chosen).
Civil Engineering, 24.	(a) Civil Engineering, 20.
Civil Engineering, 25.	(b) Civil Engineering, 21.
Mechanics, 5 (Kinematic and Mechanism).	(c) Civil Engineering, 22. (d) Civil Engineering, 23.
Astronomy, 2 (Practical Astronomy).	(e) Geology, 1 (General Course).

DESCRIPTION OF THE COURSES OF INSTRUCTION IN CIVIL ENGINEERING.

1. Elementary Surveying. The use and adjustment of all the ordinary surveying instruments; land surveying; problems in linear surveys, in laying out railway curves, etc.; topographical surveying by the transit and stadia method and also by the plane table. *Two recitations and six hours field practice a week.*
- 2-3. Surveying in the Field. *Three weeks devoted continuously to field practice.* This practice includes the topographical survey of a considerable tract of ground with an irregular surface, for the purpose of mapping it with five-foot contours, this survey being based on a system of triangulation and levels which forms a part of the work of the survey. A hydrographic survey, with locations by one of the most approved methods, is made, and a railroad line is also located from a contour map which is made in the field, and the earth-work upon it computed. Determinations are also made by the students for latitude, time and azimuth, and various other special problems are worked out practically. For this work the class goes to a suitable point at a distance from the city the third Monday before the beginning of the college year. A map of this survey is drawn after return from the field.

† Any Elective may be omitted when the number of students presenting themselves for it is less than five.

4. Stereotomy. The application of Descriptive Geometry to stone cutting, including groined, cloistered and skew arches, etc. *One recitation and three hours drawing a week.*
5. Higher Surveying. Hydrographic, mining, city and geodetic surveying, with the mathematical principles involved and the practical methods of operation used in the field; earth-work computations, etc. *Three hours a week.*
6. Drawing. To accompany Courses 2 and 5. *Nine hours a week.*
7. Stresses in Framed Structures. Analytical and graphical determinations of stresses in various styles of roof trusses and of highway and railway bridges for distributed and concentrated, fixed and moving loads. *Three hours a week.*
8. Structural Drawing. To accompany Course 7. *Nine hours a week.*
9. Engineering Materials. A review of the principles of mechanics relating especially to the strength of materials, both inside and beyond their elastic limits, together with the description of the processes of manufacture and methods of testing the strength of materials, and a discussion of the essential properties of the more common materials of engineering construction. *Three hours a week.*
10. Testing Laboratory Practice. Experimental tests made by the students on the strength of various kinds of engineering materials. *Six hours a week.*
11. Testing Laboratory Practice. Experimental tests made by the students on the strength of various kinds of engineering materials. For students in mechanical and electrical engineering. *Three hours a week.*
12. Contracts and Specifications. The law of contracts as applied to engineering work, together with typical forms of specifications. *One hour a week.*
13. Hydraulics. Hydrostatic and hydraulic theory, with the application of principles developed to the flow of water

through orifices, pipes, etc.; the determination of water-power; the measurement of velocities and discharge.
Three hours a week.

14. The designing of Framed Structures. An analytical study of the principles involved in the designing of the general and detail portions of the more common styles of bridges and roofs. *Three hours a week.*
15. Structural Design. Work in the draughting room to accompany Course 14, and involving complete details. *Nine hours a week.*
16. Water and Sewerage Systems. The collection and distribution of potable waters, as modified by various conditions of supply and service. The practical designing of systems of sewerage and drainage. Methods of sewage-disposal. Outline of irrigation methods. Water rates and special assessments. *Three hours a week.*
17. Railway Engineering. Reconnaissance, preliminary and location surveys considered in detail; railway construction and maintenance of way; standards of permanent construction; the economic theory of railway location. *Three lectures a week.*
18. Road Engineering. The location, drainage construction and maintenance of streets and roads; consideration of the different paving materials in connection with their particular characteristics and their adaptability and adequacy under various conditions of service; the cost and life of pavements. *Three lectures a week.*
19. Masonry Structures, Tunneling and Explosives. The theory of design and the construction of foundations, retaining walls, dams, arches, chimneys, bridge piers, etc., together with the study of materials involved. Methods of tunneling through different materials. The nature and use of explosives. *Three hours a week.*
20. Water and Sewage Purification. A course of four weeks on the sanitary analysis of water and sewage under Dr. Keiser in the chemical laboratory, followed by a study in

detail of methods and adequacy of different systems of water and sewage purification. Students intending to elect this course must elect Bacteriology for the preceding term. *Three lectures a week.*

21. Suspension, Cantilever, Arch and Lift Bridges. Analytical study of stresses, and principles governing the design and erection of these styles of structures; consideration of typical examples of such bridges. *Three lectures a week.*
22. (a) Steel Framework of Buildings. The various systems of construction for tall office buildings analytically considered, with the principles and details of design of this increasingly important class of structures.
(b) Combination Construction. The principles involved in structures built of steel and concrete in combination; the details of the most important systems of such construction. *Three lectures a week.*
23. Harbors, Rivers and Canals. The regimen of rivers; tides and tidal currents; the application of hydraulic and structural principles to the design, construction and maintenance of harbors, rivers and canals. *Three lectures a week.*
24. Engineering Design. Draughting and design supplementary to Courses 12, 14, 16, 17, 18, 19, 20, 21, 22 and 23. *Nine hours a week.*
25. Graduation Thesis. A complete study or design, involving original investigation or experiment.

EQUIPMENT IN CIVIL ENGINEERING.

General Equipment. — During the Freshman and Sophomore years students have the advantages of the libraries and other apparatus of the several departments in which their courses are given. For the shop work the students make use of the excellent equipment of the Manual Training School.

Library, Models, and Drawings. — There is a well-selected working library accessible to students which they consult freely on assigned topics. There is also a large assortment of drawings of the most interesting engineering and architectural structures at home and abroad. Many photographs and blue-prints have been collected illustrating all the more common styles of bridges with their details.

Surveying Instruments. — The equipment includes three transits for ordinary field work, one altazimuth instrument for triangulation and astronomical work, reading to ten seconds of arc on both horizontal and vertical circles, two engineers' levels, two needle compasses, one sextant, one plane table, one 300-foot steel tape standardized, and all the necessary accompanying apparatus for field and office work, such as stadia rods, level rods, stadia slide rules, chains, tapes, signals, protractors, parallel rules, etc. There is also a complete mining transit, adapted to the use of the stadia, which may be used for topographical work if required.

The Testing Laboratory. — The facilities in the testing laboratory are very complete. A floor space of about 1,500 square feet is occupied by the following appliances: For testing the strength of engineering materials there are two Riehlé universal testing machines with a capacity of 100,000 lbs. and 20,000 lbs. respectively, both having extension columns to accommodate long test specimens; a beam-testing machine, with a capacity of 100,000 lbs. on a length of 24 feet; two beam-testing machines with a capacity of 6,000 lbs. on a length of five feet, with

micrometer deflection measuring apparatus; a column-testing machine with capacity of 1,000,000 lbs. on a length of 36 feet or less; a 60,000 inch-pound torsion machine; one five-horse-power dynamo; a hydraulic pump; an extensometer apparatus reading to ten-thousandths of an inch, and extensometers measuring strains with less precision; drying ovens, saws, lathes, and other apparatus for preparing specimens; standard gauges, scales, thermometers, etc. For cement-testing there are machines of the Fairbanks, the Riehlé, and the Olsen types; a Riehlé screw press and a Boehme hammer for standardizing the making of briquettes; boiling and steaming apparatus for acceleration tests; a Le Chatelier specific gravity apparatus; a temperature apparatus; a volumenometer; a Riehlé-Vicat apparatus; a large assortment of briquette molds; a jig and a machine mixer; concrete molds; sieves, stamps and other appliances necessary to complete the working equipment.

II. MECHANICAL ENGINEERING.

FRESHMAN YEAR.

FIRST TERM.

English, 1 (Composition).	Mathematics, 2a (Plane Trigonometry).
German, 1 (Elementary Course) or	Chemistry, 1 (General Descriptive).
French, 1 (Elementary Course).	Drawing, 1 (Free-hand).
Mathematics, 1 (Higher Algebra).	Drawing, 2 (Instrumental and Lettering).
	Shop, 1 (Wood-working).

SECOND TERM.

English, 2 (Forms of Prose).	Physics, 1 (Elementary Mechanics).
German, 2 (Elementary Course), or	Chemistry, 2 (Descriptive Chemistry).
French, 2 (Elementary Course).	Drawing, 3 (Geometrical and Lettering).
Mathematics, 2b (Spherical Trigonometry).	Shop, 2 (Pattern Work and Geometry).
Mathematics, 3 (Analytical Moulding).	

SOPHOMORE YEAR.

FIRST TERM.

German, 3 (Reading, Composition, etc.), or	Physics, 2 (Heat and Light).
French, 3 (Reading Composition, etc.),	Chemistry, 3 (Qualitative Analysis).
*Mathematics, 3 (Analytical Geometry).	Drawing, 4 (Mechanical and Lettering).
Mathematics, 8 (Descriptive Geometry).	Shop, 3 (Forge and Machine Work).

SECOND TERM.

Civil Engineering, 1 (Elementary Surveying).	Mechanics, 1 (Statics).
*Mathematics, 4 (Differential Calculus).	Physics, 3 (Electricity and Magnetism).
Mathematics, 9 (Descriptive Geometry).	Shop, 4 (Machine Work).

In addition to the shop-work named above, mechanical engineering students will take six days of six hours each in shop-work during Commencement week and the week following.

* Mathematics 3 and 4 will occur one term earlier in 1903-4.

JUNIOR YEAR.

FIRST TERM.

*Mechanical Engineering, 1.	Mathematics, 5 (Integral Calculus).
Mechanical Engineering, 2.	Mechanics, 2 (Statics, Distribution of stress).
Mechanical Engineering, 5.	
Mechanical Engineering, 7.	
Electrical Eng., 1 (Electric Machinery).	Physics, 4 (Electrical Measurements).

SECOND TERM.

Mechanical Engineering, 3.	Electrical Eng., 2 (Electric Machinery).
Mechanical Engineering, 4.	Electrical Eng., 3 (Laboratory).
Mechanical Engineering, 6.	Mechanics, 3 (Action of Unbalanced Forces).
Mechanical Engineering, 8.	
Civil Eng., 11 (Testing Laboratory).	Physics, 5 (Electrical Measurements).
Civil Eng., 12 (Contracts).	

SENIOR YEAR.

FIRST TERM.

Mechanical Engineering, 9.	Electrical Eng., 10 (Transmission).
Mechanical Engineering, 10.	
Mechanical Engineering, 14.	Mechanics, 4 (Deflection and Torsion).
Mechanical Engineering, 16.	
Civil Eng., 13 (Hydraulics).	

SECOND TERM.

Mechanical Engineering, 11.	Mechanical Engineering, 17.
Mechanical Engineering, 12.	Mechanical Engineering, 18.
Mechanical Engineering, 13.	Mechanics, 5 (Kinematics and Mechanisms).
Mechanical Engineering, 15.	

* For a full description of the courses of instruction in Mechanical Engineering see below.

**DESCRIPTION OF THE COURSES OF INSTRUCTION IN
MECHANICAL ENGINEERING.**

1. Kinematics of Machinery. The principles of mechanism, rolling curves, cams, teeth of wheels, link work and trains of mechanism. *Three hours a week.*
2. Machine Designing. Study of the principles. *Three hours a week.*
3. Machine Designing and Mill Engineering. Shafting, gearing, belts and ropes, mill and factory construction. *Three hours a week.*
4. Elementary Steam Engineering. Elements of thermodynamics and the theory of the steam engine; types of engines; valves and valve diagrams; indicator cards; boilers and chimneys. *Three hours a week.*
5. Machinery Drawing. Work in the drawing-room to accompany Course 1. *Three hours a week.*
6. Machinery Drawing. Details of the steam engine; link motions and valve diagrams. *Three hours a week.*
7. Mechanical Laboratory. Standardization of instruments; oil testing. *Three hours a week.*
8. Mechanical Laboratory. Lining up and adjusting the steam engine; use of the indicator; valve setting; tests of the steam engine. *Three hours a week.*
9. Advanced Steam Engineering. Thermodynamics; application of thermodynamics to steam and other heat engines. *Three hours a week.*
10. Steam Engine Designing. *Three hours a week.*
11. Boiler and Chimney Designing. *Three hours a week.*
12. Heating and Ventilation. *Three hours a week.*
13. Pumps, Cooling Towers, Air Compressors, Refrigeration Machinery, etc. *Three hours a week.*
14. Engine Designing. Work in the drawing-room to accompany Course 10. *Six hours a week.*
15. Boiler Designing. Work in the drawing-room to accompany Course 11. *Three hours a week.*

16. Mechanical Laboratory. Tests of the steam and gas engines.
Six hours a week.
17. Mechanical Laboratory. Boiler tests; visits to manufacturing establishments. *Six hours a week.*
18. Thesis. A complete study or design, involving original investigations or experiments.

EQUIPMENT IN MECHANICAL ENGINEERING.

Students have access to a small but modern and carefully selected technical library and to a number of the best technical journals which are kept bound and up to date. In addition to the library the department has also a number of drawings illustrating modern methods of designing and constructing engines, boilers and machines of different kinds. Special attention has been given, however, in the selection of the drawings to those which refer to steam engineering, and especially to engine and boiler work, and heating and ventilating. Among the drawings are a number of working drawings of the machinery of ships for the United States Navy. A large number of photographs and pictures which were donated to the department by manufacturers of different machines are kept on hand for reference by the students. Catalogues of machines of different kind are kept filed away in special drawers provided for them, and to these the students have access. The students use the library, the drawings and the catalogues when studying or working up special subjects. Reference is also constantly made to the drawings and the catalogues in the course of the lectures.

The laboratory contains at present a plain slide valve engine which is fitted up with a Prony brake and which

has three separate valves. This engine is used by the students in their practice work when learning to set valves and to take indicator cards. There is also a gas engine, a steam calorimeter, a pair of Crosby indicators, a Thompson coal calorimeter, a pyrometer, a complete set of apparatus for testing lubricators, a standard gas meter; and a number of smaller instruments such as a standard gauge, a planimeter, a tachometer, thermometers, revolution counters, etc., etc. During the summer of 1902, a cross compound automatic engine of about fifty horse-power, fully equipped with an Alden brake and a condenser and other appliances necessary for laboratory work, will be set up. A complete fuel-testing outfit will be bought, and a blower fan arranged with heating coils for testing purposes will be fitted up. One or more pumps will be set up and arranged so that they may be used, with or without the condenser, for pumping water against various heads. The present equipment with the apparatus which will be installed during the coming summer will make a small but very complete laboratory for testing purposes, especially for work in connection with steam and steam using machinery.

The students now use the boilers of the central heating plant of the University for experimental purposes. In this plant they make boiler tests and sometimes make tests to determine the value of coals of different grades.

For their shop work the students go to the shops of the St. Louis Manual Training School, where they receive a training in the use and care of metal and wood working machinery.

III. ELECTRICAL ENGINEERING.

FRESHMAN YEAR.

FIRST TERM.

Mathematics, 1 (Higher Algebra).	English, 1 (Composition).
Mathematics, 2a (Plane Trigonometry).	Chemistry, 1 (General Course).
French, 1 } (Elementary or German, 1 } Course).	Drawing, 1 (Freehand).
Shop, 1 (Woodwork).	Drawing, 2 (Lettering and Instrumental).

SECOND TERM.

Mathematics, 2b (Spherical Trigonometry).	English, 2 (Forms of Prose).
Mathematics, 3 (Analytic Geometry).	Chemistry, 2 (Descriptive).
French, 2 } (Elementary or German, 2 } Course.)	Physics, 1 (Elementary Mechanics).
Shop, 2 (Pattern Work and Molding).	Drawing, 3 (Geometrical and Lettering).

SOPHOMORE YEAR.

FIRST TERM.

French, 3 } (Reading and German, 3 } Composition.)	Chemistry, 3 (Qualitative Analysis).
*Mathematics, 3 (Analytical Geometry).	Drawing, 4 (Mechanical and Lettering).
Physics, 2 (Heat and Light).	Shop, 3 (Forge and Machine Work).
Mathematics, 8 (Descriptive Geometry).	

* Mathematics 3 and 4 will occur one term earlier in 1903-4.

SECOND TERM.

Physics, 3 (Electricity and Magnetism).	Mechanics, 1 (Statics).
Civil Engineering, 1 (Surveying).	Shop, 4 (Machine Work).
*Mathematics, 4 (Differential Calculus).	Mathematics, 9 (Descriptive Geometry).

In addition to the shop work named above electrical engineering students will take six days of six hours each in shop-work during Commencement week and the week following.

JUNIOR YEAR.

FIRST TERM.

*Electrical Engineering, 1.	**Mathematics, 5 (Integral Calculus).
Mechanical Engineering, 1 (Kinematics).	Mechanics, 2 (Statics, Distribution of Stress).
Mechanical Engineering, 2 (Machine Designing).	Physics, 4 (Electrical Measurements).
Mechanical Engineering, 5 (Drawing).	Mechanical Engineering, 7 (Laboratory).

SECOND TERM.

Electrical Engineering, 2.	Civil Engineering, 11 (Testing Laboratory).
Electrical Engineering, 3.	Civil Engineering, 12 (Specifications and Contracts).
Mechanical Engineering, 3 (Machine Designing) and (Mill Engineering).	Mechanics, 3 (Unbalanced Forces).
Mechanical Engineering, 4 (Steam Engine).	Physics, 5 (Electrical Measurements).
Mechanical Engineering, 6 (Drawing).	Mechanical Engineering, 8 (Laboratory).

* For a full description of the courses of instruction in Electrical Engineering see below.

** Mathematics 5 will occur one term earlier in 1904-5.

SENIOR YEAR.

FIRST TERM.

Electrical Engineering, 4.	Mechanics, 4 (Deflections and Torsion).
Electrical Engineering, 6.	
Electrical Engineering, 8.	Physics, 6 (Mathematical Theory of Electricity and Magnetism).
Electrical Engineering, 10.	
Civil Engineering, 18 (Hydraulics).	

SECOND TERM.

Electrical Engineering, 5.	Electrical Engineering, 12.
Electrical Engineering, 7.	Mechanics, 5 (Kinematics and Mechanism).
Electrical Engineering, 9.	
Electrical Engineering, 11.	Thesis.

DESCRIPTION OF COURSES OF INSTRUCTION IN ELECTRICAL ENGINEERING.

1. General introduction to the study of electrical machinery. Electrical units, and the characteristics of dynamo-electric machinery. This course is especially designed for students in Civil Engineering. *Three hours.*
2. Extension of course 1. Treatment of the subject in greater detail, and an introduction to the elements of alternating currents. *Three hours.*
3. Laboratory work with direct current machinery. Determination of characteristics of direct current generators and motors. *Three hours.*
4. Lectures and recitations on the design of direct current machinery; generators, motors, and electro-magnets. *Three hours.*
5. Lectures and recitations on the design of alternating current machinery. *Three hours.*
6. Work in drawing room to accompany course 4; detail design of machine of specified performance. *Six hours.*

7. Work in drawing room to accompany course 5; detail design of a polyphase generator, motor, or transformer. *Six hours.*
8. Laboratory work; efficiency and core loss tests, determinations of wave forms, etc. *Six hours.*
9. Laboratory work with alternating currents; special investigations. *Nine hours.*
10. Lectures on methods of electrical testing, and calculation of sizes of wires for distributing networks. *Two hours.*
11. Lectures on street-railway working. Generation, distribution, and utilization of power. *Two hours.*
12. Detailed treatment of some engineering project, involving the preparation of estimates and specifications, together with the presentation of an argument supporting the solution adopted. *Two hours.*

EQUIPMENT IN ELECTRICAL ENGINEERING.

The laboratory equipment at the present time consists of the following apparatus: —

(a) *Machines.* — A high speed Buckeye engine of twenty horse-power, a Wagner single-phase induction motor of five horse-power, a small Wood shunt-wound generator, a Wood series-wound, cradle mounted generator, and a small multipolar motor.

(b) *Instruments.* — Two Kelvin current balances of one, and five hundred, amperes capacity, respectively, a Siemen's dynamometer, a Thomson quadrant electrometer, and a number of Weston and Thomson portable ammeters, voltmeters, and wattmeters. There are also two Wheatstone bridges, a Leed's potentiometer of high accuracy, Elliott and Stanley condensers, and auxiliary galvanometers, etc.

This equipment will be largely increased by the fall term of 1902 by the addition of the following apparatus: —

(a) *Machines.* — One fifteen horse-power bipolar motor, one fifteen Kilowatt multipolar motor, one ten Kilowatt three-phase alternator, one ten Kilowatt rotary converter, one five horse-power three-phase induction motor, and one five Kilowatt auto-transformer.

(b) *Instruments.* — Eleven indicating instruments, including standard ammeters, voltmeters, and wattmeters, provided with shunts and multipliers, a pair of Carhart-Clark standard cells, two Reichsanstalt standard resistances, and two tachometers.

IV. CHEMICAL ENGINEERING.

FRESHMAN YEAR.

FIRST TERM.

English, 1 (Composition).	Mathematics, 2a (Plane Trigonometry).
German, 1 (Elementary Course) or	Chemistry, 1 (General Descriptive).
French, 1 (Elementary Course).	Drawing, 1 (Freehand).
Mathematics, 1 (Higher Algebra).	Drawing, 2 (Instrumental and Lettering).
	Shop, 1 (Wood Working).

SECOND TERM.

English, 2 (Forms of Prose)	Physics, 1 (Elementary Mechanics).
German, 2 (Elementary Course) or	Chemistry, 2 (Descriptive Chemistry).
French, 2 (Elementary Course).	Drawing, 3 (Geometrical and Lettering).
Mathematics, 2b (Spherical Trigonometry).	Shop, 2 (Pattern Work and Molding).
Mathematics, 3 (Analytical Geometry).	

SOPHOMORE YEAR.

FIRST TERM.

German, 2 (Reading, Composition, etc.) or French, 3 (Reading, Composition, etc.).	Physics, 2 (Heat and Light). Chemistry, 3 (Qualitative Analysis).
Mathematics,* 3 (Analytical Geometry).	Drawing, 4 (Mechanical and Lettering).
Mathematics, 8 (Descriptive Geometry).	Shop, 8 (Forge and Machine Work).

SECOND TERM.

Chemistry,‡ 4.	Mathematics, 9 (Descriptive Geometry).
Civil Engineering, 1 (Surveying).	Mechanics, 1 (Statics).
Mathematics, 4 (Differential Calculus).	Physics, 3 (Electricity and Magnetism).

JUNIOR YEAR.

FIRST TERM.

Chemistry, 5.	Electrical Eng., 1 (Electric Machinery).
Chemistry, 7.	†Mathematics, 5 (Integral Calculus).
Chemistry, 13.	Mechanics, 2 (Statics and Distribution of Stress).
Mechanical Eng., 2 (Machine Designing).	Mechanical Eng., 4 (Steam Engine).
	Mechanics, 3 (Action of Unbalanced Forces).

SECOND TERM.

Chemistry, 6.	Mechanical Eng., 4 (Steam Engine).
Chemistry, 8.	Mechanics, 3 (Action of Unbalanced Forces).
Chemistry, 14.	Geology, 1 (General Course).
Mechanical Eng., 3 (Machine Designing).	

* Mathematics 3 and 4 will occur one term earlier in 1903-4.

† Mathematics 5 will occur one term earlier in 1904-5.

‡ For a full description of chemical courses of instruction see below.

SENIOR YEAR.

FIRST TERM.

Chemistry, 9.	Electrical Eng., 3 (Direct Current Motors, etc.).
Chemistry, 11.	Mechanics, 4 (Deflections and Torsion).
Chemistry, 15.	
Chemistry, 17.	
Civil Engineering, 13 (Hydraulics).	Botany, 16 (Bacteriology).

SECOND TERM.

Chemistry, 10.	Elec. Eng., 4 (Design of Direct-Current Machinery).
Chemistry, 12.	Mechanics, 5 (Kinematics and Mechanism).
Chemistry, 16.	
Chemistry, 18.	
Civil Eng., 9 (Engineering Materials).	Botany, 17 (Bacteriology).

DESCRIPTION OF COURSES OF INSTRUCTION IN CHEMISTRY.

- 1-2. General Descriptive Chemistry. Lectures and laboratory work upon the preparation and properties of the more important elements and compounds. General laws and principles of chemistry. *Two lectures and two hours of laboratory work a week.*
3. Qualitative Analysis. Systematic methods of separating and detecting the bases and acids. Laboratory work. *Six hours a week.*
4. Quantitative Analysis. Methods of gravimetric and volumetric analysis. Laboratory work. *Six hours a week.*
- 5-6. Organic Chemistry. Lectures upon the chemistry of the carbon compounds. Preparation, properties and transformations of typical compounds. Methods of determining chemical constitution; relationships between classes of compounds. General laws and theories. *Three hours a week.*

- 7-8. Laboratory Work in Organic Chemistry. Preparation and study of the transformation of typical compounds. *Six or twelve hours a week.*
- 9-10. Advanced Quantitative Analysis. Laboratory Work. Analysis of commercial and industrial materials and products. Assaying. Sanitary examinations of foods, water, etc. Gas analysis. *Six or twelve hours a week.*
11. Laboratory work in Physical Methods. Determination of molecular weights by the freezing point and boiling point methods. *One hour a week.*
12. Chemical Seminary. Advanced workers and Instructors meet to report upon and discuss articles in current chemical journals. *One hour a week.*
13. Mineralogy. Crystallography and the determination of minerals by means of the blowpipe. *Three hours a week.*
14. Descriptive mineralogy. Lectures and laboratory work. *Three hours a week.*
- 15-16. Industrial and Engineering Chemistry, Lectures and Laboratory Work. *Two hours a week.*
- 17-18. Research work in Theoretical or Applied Chemistry. Investigation of some subject in pure or applied Chemistry. Laboratory work and reading of original papers and memoirs. Preparation of a thesis.

EQUIPMENT IN CHEMICAL ENGINEERING.

The Chemical Laboratory is provided with six analytical balances and with all the necessary graduated glass apparatus such as burettes, pipettes, therinometers, barometers, etc., for work in inorganic and organic chemistry. A full supply of the ordinary chemical apparatus, glass and metal ware, and inorganic and organic chemicals is constantly kept on hand.

A collection of organic specimens to be used in illustrating the course of lectures on carbon compounds has been formed and is constantly increasing.

The reference library contains a number of the more important treatises and text-books on the subject.

V. SCIENCE AND LITERATURE.

FRESHMAN AND SOPHOMORE YEARS,

(See pages 69 and 70).

JUNIOR YEAR.

The work of the Junior year consists of nine Courses of Instruction, all elective. The choice of studies must be approved by the Dean at the beginning of each term.

SENIOR YEAR.

The work of the Senior year consists of nine Courses of Instruction, all elective. The choice of studies must be approved by the Dean at the beginning of each term. A Thesis of literary or scientific character acceptable to the Faculty will be required as one condition of graduation.

VI. COURSE IN ARCHITECTURE.

The Course in Architecture which may be entered upon in September, 1902, can only be outlined in general terms. A full and detailed statement will be published by itself during the year. However, during the Freshman Year the Course will in no respect differ from that of all other Courses in the School of Engineering, and the work during the Sophomore Year will differ but slightly from that of the Civil Engineering Course. Accordingly the work as laid down on pages 69 and 70 for the Freshman and Sophomore Years may be accepted as substantially the work of two years in the Course in Architecture.

FOR THE JUNIOR AND SENIOR YEARS.

The arrangement for these two years according to semesters has yet to be made, but the following statement of the Courses of Instruction embraces substantially all except what is included under the head of Mathematics and Mechanics. The study of Framed Structures and of Steel Construction is included under Course 13 given below.

1. Advanced Free-hand Drawing. Drawing in Charcoal from casts of architectural ornament, and from casts of parts of the human form. Drawing from the Antique.
2. Water-Color Drawing. Drawing in water-color from still-life and from nature.
3. History of Ancient Architecture:— Egyptian, Assyrian, Persian, Greek, Roman.
4. History of Mediaeval Architecture:— Byzantine, Roman esque, Gothic.
5. History of Renaissance and Modern Architecture. The Renaissance, Modern Revivals, Oriental and American Architecture.
6. The Elements of Architecture. Analysis of the Five Orders of Classic Architecture and exercises in drawing and rendering them.
7. The Elements of Architecture. Analysis of the elements employed in Classic and Renaissance Design, and exercises in drawing and rendering them. Mouldings, pedestals, pilasters, pediments, inter-columniations, arches and vaults, imposts, doors, windows, roofs, spires, steps, stairs, domes.
8. Elementary Architectural Drawing. Elementary problems in design, involving the use of the orders and the elements of design. Theory of the composition of line drawings. Rendering of architectural drawings in pen-and-ink freehand. Elementary application of India ink and color washes to architectural drawings.

9. Sketch Design. Problems to be rendered in the form of sketch designs in limited time of one or two days. Alternating with Course 8: Regular problems in design.
10. Design. The development of the principles of composition and planning by the working out of problems in design. Alternating with Course 7.
11. Sketch Design. Advanced problems to be rendered in the form of sketch designs, in limited time of one or two days. Alternating with regular problems in design.
12. Advanced Design. Application of the principles of preceding courses to advanced problems in planning and composition.
13. Building Construction. The nature and use of materials employed in architectural construction. Approved methods of modern building. Specifications and working drawings. Lectures. Drawing-room work and visits of inspection.
14. History of Sculpture and Painting. A course of lectures on the history of sculpture and painting and their relation to architecture, with research and use of text-book.
15. Thesis. An extended problem, involving original research and study in advanced planning and composition, with memoir and essay on materials and construction.

LECTURE FOUNDATIONS.

A Lecture Endowment Fund, amounting to \$27,000, was created in 1875, by one of the early friends of the University, Mr. William Henry Smith. It was given without any restrictions, except that the fund should be increased, if practicable, by accruing interest, to \$30,000, which has been accomplished, and that no part of the principal should be expended.

The beginning of a fund for the encouragement of the study of American History has been made by a gift of \$15,000 by Mrs. Mary Hemenway of Boston, Massachusetts.

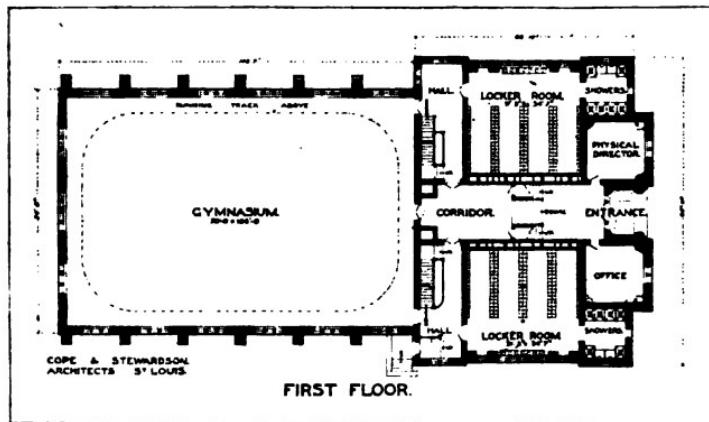
LIBRARY AND READING ROOM.

Necessary books of reference are provided, and also a good selection of periodical literature. No attempt is made at present to gather a general library. During the year 1880 a gift of about three thousand volumes was received from the family of the late Joseph Coolidge, of Boston. The collection, known as the Coolidge Library, is especially rich in excellent editions of Italian and French authors, and is a very material addition to the usefulness of the library.

Through the liberality of a number of citizens of St. Louis an arrangement has been made by which the privilege of using the Mercantile Library has been extended, under prescribed conditions, to such members of the University as may be designated by the Chancellor.

PHYSICAL CULTURE.

Ample provision is made for gymnastics and field sports generally in the plans for the new University. The Gymnasium and Athletic Field stand side by side at the western end of "Broad Walk," just one-half mile from the clock face on University Tower, and about 1,000 feet west of the Dormitories. The Athletic Field affords opportunity for base ball, foot ball, and every variety of



field athletics. The running track is finished in the most approved manner, and is unusually large, having only three laps to the mile. The heavy excavation required to reduce the field to a level has left a broad amphitheater extending nearly half the circumference, affording unequaled opportunity for spectators. The ground plan is well shown on the map attached to the cover of this catalogue.

The Gymnasium is shown by the first floor plan. The complete establishment will cost fully \$150,000, and will be finished early in 1903. The building is three stories high with a high and well-lighted basement. Lockers, shower baths, and lavatories are on four floors, with accommodations for 2,000 men. The Gymnasium Hall is 70 ft. x 105 ft. and when the apparatus is drawn aside

or up out of the way, there is a very superior court for hand ball and basket ball, two athletic indoor games worthy of the approval and support of all students. The proximity of the Gymnasium to the Athletic Field renders special dressing rooms for the Field teams unnecessary. A unique feature of the Gymnasium is a special dressing room with baths for the use of visiting clubs. It is intended to make every club, which comes to play with a University team, the guest of the University for the time being, and everything which can add to its comfort and convenience will be provided.

The Athletic Field will be used more or less by the University during the Fall of 1902 and until the Fair is opened. After the Fair it will come into immediate possession and constant use.

The Gymnasium and Field will be placed in charge of a Professor of Physical Culture, who will supervise all exercises and games. He will carefully examine every student and prescribe for him a scheme of culture. No student will be allowed to play foot ball, or to run races, without the written permission of the Professor in charge. Systematic gymnastics must precede severe athletics.

On the north side of Broad Walk there is ground for a large number of tennis courts for such clubs as may be formed among the students. Each club will be assigned ground for one or more courts which they can fit up and control.

The high ground, pure air, and perfect sanitation of the University Campus are a guarantee for conditions healthful and pleasant.

Before and during the Louisiana Purchase Fair, in addition to the Gymnasium and some hand-ball and basketball courts on the lot at Beaumont and Locust streets, the students will have the use of a rented field for athletic practice, field sports, and match games with visiting clubs.

SCHOLARSHIPS.

One perpetual scholarship, founded by the payment of \$5,000 and entitling the holder to all the advantages of all the departments of the University forever, has been placed at the disposal of the Mercantile Library Association, with the recommendation "that when the applicants for scholarship are of equal merit, the preference shall be given to one for some mechanical pursuit."

Two scholarships are also held by the St. Louis High School, one of which is given to the student graduating from the school in June with the highest record, and the other to the student graduating in January with the highest record. The scholarships entitle the holders to free tuition in the Undergraduate Department.

One scholarship is also held by the School Board of Kansas City for the benefit of the graduates of the Kansas City High School. This scholarship entitles the holder (who is to be selected by the School Board) to free tuition in the College or the School of Engineering. Reports of the standing of the student will be made to said Board annually by the Dean.

A trust fund of \$30,000 has been accepted by the University from the WESTERN SANITARY COMMISSION, for the establishment of TWENTY FREE SCHOLARSHIPS in the

Undergraduate Department, to be filled by children or descendants of Union soldiers who served in the late civil war. In default of such applicants, candidates will be appointed by the Chancellor of the University with the advice of the Faculty. Preference is given to those in straitened circumstances, *and no student is accepted or continued who is not of good moral character, who does not sustain satisfactory examinations or who fails to comply with the rules of the University.*

From the same source a SUSTENTATION FUND of \$10,000 has been accepted, the income of which is expended in aid of students in straitened circumstances, giving preference always to the descendants of Union soldiers, as above.

EXAMINATIONS.

The examinations in the Undergraduate Department are frequent and rigid. No promotions to higher classes are made except upon conclusive evidence that the antecedent subjects have been well mastered. Reports of the standing of individual students will be made by the Deans to parents or guardians, if such are requested.

DEGREES IN THE UNDERGRADUATE DEPARTMENT.

I. IN THE COLLEGE.

The degree of *Bachelor of Arts* is conferred upon the satisfactory completion of thirty-eight courses.

II. IN THE SCHOOL OF ENGINEERING.

1. The degree of *Bachelor of Science* is conferred on the satisfactory completion of four years' work.
2. The professional degrees of *Civil Engineer*, *Mechanical Engineer*, *Electrical Engineer*, *Chemical Engineer*, and *Architect* are conferred only after three or more years of actual and successful practice, one year of which must have been spent in responsible charge of engineering architectural work, and the presentation of an acceptable thesis; both the thesis and the experience should be such as to show an ability to design and execute high grade work.

No student will be recommended for a degree who has not passed all his examinations and handed in such projects or theses as may be required.

The diploma fee is three dollars, payable in advance.

ADVANCED DEGREES.

The degree of *Master of Arts*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Arts.

The degree of *Master of Science*, which is granted after not less than one year of residence and study, is open to all who have received from this University the degree of Bachelor of Science, of Civil Engineer, of Mechanical Engineer, of Electrical Engineer, of Engineer of Mines or Chemist or Chemical Engineer, or Architect.

The degree of *Doctor of Philosophy*, which is granted after not less than two years of residence and study (the

two years of residence and study may include the year of preparation for the Master's degree), is open to all who have received the degree of Master from this University.

The degrees of Master of Arts, Master of Science, and Doctor of Philosophy are open to graduates of other institutions who shall have satisfied the Committee on Advanced Degrees of their fitness.

Applications for candidacy for the degree of Master of Arts, Master of Science or Doctor of Philosophy are referred to a committee of five members of the Faculty of the Undergraduate Department, annually appointed, known as the *Committee on Advanced Degrees*.

The Committee decides upon the admission of the candidate; determines the course of study which the candidate is to pursue; determines by examination, thesis, or both, whether a candidate is suitably prepared for the degree; and recommends the granting of the degree to the Faculty of the Undergraduate Department.

REQUIREMENTS FOR THE MASTER'S DEGREE.

- a. At least one year of residence and study.
- b. Every candidate must pass such written examinations as the Committee on Advanced Degrees may see fit to prescribe.
- c. In addition to the work specified in each case, every candidate shall present a satisfactory thesis, which must be submitted not later than May 1 of the year in which the degree is to be conferred.

REQUIREMENTS FOR THE DOCTOR'S DEGREE.

- a. Two years of residence and study.
- b. Every candidate must satisfy the Committee on Advanced Degrees that he has a reading knowledge of French and German.
- c. Every candidate shall present an acceptable thesis, which shall be the result of original investigation. This thesis must be presented not later than April 1 of the year in which the degree is to be conferred; and every candidate must furnish the Committee on Advanced Degrees with 200 printed copies of his thesis, after its acceptance, before he can be recommended for the degree.

FEES.

Every candidate for the Master's degree is required to pay fifty dollars, and every candidate for the Doctor's degree one hundred dollars; one-half to be paid as a condition of admission to candidacy, and the remainder before the conferring of the degree.

The diploma fee is five dollars, payable in advance.

COMMITTEE ON ADVANCED DEGREES FOR 1901-1902.

The following members of the Faculty constitute the Committee for 1901-1902: Professors Snow (chairman), Nipher (secretary), Heller, Keiser and Shipley.

TUITION.

Tuition in the Undergraduate Department for students in full standing is \$150 a year, payable semi-annually, in advance if required, and always before the middle of the term.

A matriculation fee of five dollars, payable in advance, is required of all candidates for degrees.

Tuition for special students is \$15.00 for each course.

BOARD AND LODGING.

Students living at a distance from the University have no difficulty in securing rooms and board at reasonable rates. The yearly expenses may range between the following estimates, according to taste and habits of economy: —

Tuition	\$150 00	—	\$150 00
Board, lodging, and washing, 9 months .	200 00	to	300 00
Books and instruments	10 00	"	20 00
Incidentals	15 00	"	30 00
<hr/>			
Total for one year	\$375 00	to	\$500 00

Books and instruments may be obtained at cost from the *Co-operative Association*, organized and managed by the students of this Department.

HENRY SHAW SCHOOL OF BOTANY.

(A DEPARTMENT OF WASHINGTON UNIVERSITY.)

HENRY SHAW SCHOOL OF BOTANY.

ESTABLISHED JUNE 8, 1885.

ADVISORY COMMITTEE.

THE CHANCELLOR OF THE UNIVERSITY, *ex officio*.

WILLIAM G. FARLOW, M.D.

GEO. J. ENGELMANN, M.D.

INSTRUCTORS.

WILLIAM TRELEASE,

DIRECTOR AND

ENGELMANN PROFESSOR OF BOTANY.

HERMANN VON SCHRENK,

INSTRUCTOR IN CRYPTOGAMIC BOTANY.

SAMUEL MONDS COULTER,

GENERAL INSTRUCTOR.

ELLEN C. CLARK,

ASSISTANT AT THE MARY INSTITUTE.

GENERAL INFORMATION.

In June, 1885, Mr. Henry Shaw, of St. Louis, authorized the Chancellor of the University to place before the Board of Directors a plan of action for the establishment of a School of Botany, as follows: —

That he proposed, with the concurrence of the Directors, to endow a School of Botany as a department of Washington University, by donation of improved real estate, yielding over \$5,000 revenue, and to place it in such relation with the largely endowed Missouri Botanical Garden and Arboretum as would practically secure their best uses, for scientific study and investigation, to the professor and students of the said School of Botany, in all time to come.

At a meeting of the Board of Directors held June 8, 1885, the following resolutions were, therefore, offered, in grateful acceptance of Mr. Shaw's proposal: —

1. That a School of Botany be established as a special department of Washington University, to be known as the Henry Shaw School of Botany.
2. That a professorship of Botany be therein established, to be known as the Engelmann Professorship.
3. That Professor Wm. Trelease, of the University of Wisconsin, be invited to fill the same; his duties to begin at the commencement of the next academic year, September 17.
4. That said School of Botany be placed under the special care and direction of an advisory committee, to consist of five members, of whom two shall be members of this Board, and two shall be selected outside of the Board — the Chancellor of the University being a member *ex officio*.

This report was accepted and the resolution unanimously adopted. The record of such action was then submitted to Mr. Shaw and approved by him.

On this foundation, the School of Botany was opened in the autumn of 1885. In his will, admitted to probate in 1889, Mr. Shaw further provided for the maintenance of the income of the School up to a certain limit, and took steps calculated to secure the proposed close co-operation between the School of Botany and the Botanical Garden.

The laboratory of the School of Botany is temporarily located at 1724 Washington avenue, and a small library, containing the usual laboratory manuals and class books, which is kept at the laboratory for reference, is added to as new books, needed for class use, appear. In addition to alcoholic and imbedded material, a small herbarium is being formed, which is intended to contain representatives of the local flora. Advanced students, some of whose work is done at the Garden, also have the privilege of consulting, under necessary restrictions, the excellent herbarium and library maintained there, and now comprising about 365,000 sheets of specimens, about 36,000 books and pamphlets, and a large collection of wood veneers and sections; and no effort is spared to make the Garden equipment as complete as possible in any line of work taken up by competent investigators.

The instrumental equipment of the laboratory includes one microscope by Zeiss, with the necessary objectives, ranging from AA. to 1-18 in oil immersion, and accessories for spectroscopic studies and work with polarized

light; twenty microscopes by Leitz, with the objectives needed for the best work (including five 1-12 in. oil immersion lenses, one 1-16 in. oil immersion, and one 1-20 in. oil immersion), polariscope, camera lucidas of several patterns, etc.; sixteen dissecting microscopes by Bausch and Lomb; two dissecting microscopes by Leitz, one of them provided with camera lucida; a projecting apparatus for delineating objects under a low power of enlargement; a simple outfit comprising all that is necessary for ordinary bacteriological investigation; and good microtomes and other apparatus needed for histological work and elementary physiological experimentation. Students are provided by the laboratory with all necessary instruments and supplies (excepting razors or other cutting instruments) without charge except for breakage or other injury and for slides and cover glasses used for permanent preparations; but when alcohol or other expensive substances are used in quantity, as in work on bacteria, a special charge may be made for material used. The working year of the School of Botany is of the same extent as that of the Undergraduate Department of the University, and is similarly divided, except for a few special teachers' classes corresponding to the usual school terms.

The work offered students is of two classes: undergraduate studies, including at present eighteen stated electives — the equivalent of nearly three full years' work, — and post-graduate or special courses for advanced students, planned in each case to meet the needs of the student. For the convenience of students, nearly all ele-

mentary instruction is given at the laboratory, near the other University buildings, where the principal instrumental equipment is kept, but the study of living plants, and advanced herbarium and library work, are provided for at the Garden. All courses capable of being so taught are given in the laboratory, and supplemented by lectures and quizzes by the teacher. The few lecture courses offered are illustrated wherever possible by specimens exhibiting the subject under consideration, and by wall charts and the stereopticon.

A list of the undergraduate electives is given above (p. 34), in the general information concerning the Undergraduate Department. Under the advice of the Dean of the College and the Professor of botany, students who wish to make a specialty of botany through their course may arrange to take all of these electives and to follow them by a piece of investigation on which a thesis is to be based; and regularly enrolled special students who are not candidates for a degree may give the greater part of their time to botanical study, subject to such regulation as is prescribed by the Faculty.

Special classes for the benefit of teachers, and other persons not in attendance at the University, are formed from time to time, and such persons may be admitted to any of the regular electives on the payment of a tuition fee conformed to the general rates of the University, namely, \$15.00 for each full course (of three exercises per week during a term), and \$7.50 for each half course (of less than three exercises per week for the same length of time).

Graduate students who are eligible under the rules of the Faculty to candidacy for a higher degree (p. 99), if suitably prepared, may elect research work in botany as their principal study for such degree.

Applications for the formation of special classes, and all correspondence concerning the School of Botany, should be addressed to

WILLIAM TRELEASE,
Shaw School of Botany,
St. Louis, Mo.

ST. LOUIS SCHOOL OF FINE ARTS.

(ART DEPARTMENT OF WASHINGTON UNIVERSITY.)

19th and Locust Streets.

All communications in regard to the School should be addressed

ST. LOUIS SCHOOL OF FINE ARTS.

CALENDAR.

1901-1902.

FIRST TERM, DAY SCHOOL, begins Monday, September 23, 1901.
FIRST TERM, DAY SCHOOL, ends Saturday, December 14, 1901.
FIRST TERM, NIGHT SCHOOL, begins Monday, November 4, 1901.
FIRST TERM, NIGHT SCHOOL, ends Saturday, February 1, 1902.
SECOND TERM, DAY SCHOOL, begins Monday, December 16, 1901.
SECOND TERM, DAY SCHOOL, ends Saturday, March 15, 1902.
SECOND TERM, NIGHT SCHOOL, begins Monday, February 3, 1902.
SECOND TERM, NIGHT SCHOOL, ends Saturday, April 26, 1902.
THIRD TERM, DAY SCHOOL, begins Monday, March 17, 1902.
THIRD TERM, DAY SCHOOL, ends Saturday, June 7, 1902.
EXHIBITION OF STUDENTS' WORK, June 10-12, 1902.

1902-1903.

FIRST TERM, DAY SCHOOL, begins Monday, September 22, 1902.
FIRST TERM, DAY SCHOOL, ends Saturday, December 13, 1902.
FIRST TERM, NIGHT SCHOOL, begins Monday, November 3, 1902.
FIRST TERM, NIGHT SCHOOL, ends Saturday, January 31, 1903.
SECOND TERM, DAY SCHOOL, begins Monday, December 15, 1902.
SECOND TERM, DAY SCHOOL, ends Saturday, March 14, 1903.
SECOND TERM, NIGHT SCHOOL, begins Monday, February 2, 1903.
SECOND TERM, NIGHT SCHOOL, ends Saturday, April 25, 1903.
THIRD TERM, DAY SCHOOL, begins Monday, March 16, 1903.
THIRD TERM, DAY SCHOOL, ends Saturday, June 6, 1903.
EXHIBITION OF STUDENTS' WORK, June 9-11, 1903.

ST. LOUIS SCHOOL OF FINE ARTS.

REORGANIZED MAY 22, 1879.

The establishment of the Art School upon a broad and permanent foundation has always been part of the plan of Washington University. For nearly twenty-five years Art instruction has been embodied in the course of study. In 1875, special students were admitted to the Drawing Department, and class and public lectures were given on Art History. The same year an evening school was opened.

On May 22, 1879, the Directors of the University adopted an ordinance establishing a Department of Art in Washington University, from which the following extracts are taken:—

“A Department of Art is hereby established as a special Department of Washington University, to be known as THE ST. LOUIS SCHOOL OF FINE ARTS.

“The objects of said Department shall be: Instruction in Fine Arts; the collection and exhibition of pictures, statuary, and other works of art, and of whatever else may be of artistic interest and appropriate for a Public Gallery or Art Museum; and, in general, the promotion by all proper means of aesthetic or artistic education.”

BOARD OF CONTROL.

ELLIS WAINWRIGHT, PRESIDENT,
 WINFIELD S. CHAPLIN, CHANCELLOR, *ex officio*.
 HARRISON I. DRUMMOND.
 ALFRED L. SHAPLEIGH.
 CHARLES PARSONS.
 CHARLES NAGEL.
 GEORGE D. BARNARD.
 EDWARD R. HOYT.
 WM. K. BIXBY.
 HALSEY C. IVES, DIRECTOR, *ex officio*.

INSTRUCTORS AND LECTURERS.

HALSEY C. IVES, DIRECTOR.

Lecturer on the Historical Development of Art.
Pupil of Alexander Piatowski.

ROBERT P. BRINGHURST,
Modeling and Sculpture.

St. Louis School of Fine Arts — Atelier Dumont, l'Ecole des Beaux Arts.

Drawing and Painting from Still Life.

St. Louis School of Fine Arts — Pupil of Boulanger and Lefebvre.

CHARLES WARD RHODES,
Perspective, Shades and Shadows.

Kgl. Academie, Munich, and K. K. Kunstgewerbe Schule, Berlin.

EDMUND H. WUERPEL,

Drawing and Painting from Life, and Composition.

Pupil of St. Louis School of Fine Arts, Bouguereau, Ferrier, Aman-Jean, and l'Ecole des Beaux Arts.

CHARLES P. DAVIS,
Antique.

Pupil of N. Y. Art Students' League, Bouguereau, Ferrier, and Fleury.

GRACE HAZARD,*Saturday Classes.*

Pupil of St. Louis School of Fine Arts.

ALICE M. G. PATTISON,*Lecturer on Engraving, Etching, and Allied Arts.*

Pupil of Ross Turner, Wm. M. Chase, and S. R. Koehler.

ELISE BLATTNER,*Lecturer on the History of Art.*

University of Berlin.

OSCAR W. RAEDER,*Mechanical and Architectural Drawing.*

Pupil of St. Louis School of Fine Arts and Washington University.

RICHARD E. MILLER,*Drawing and Painting from Life, and Composition.*

Pupil of St. Louis School of Fine Arts and Laurens, Constant and Julian Academy.

HENRIETTA ORD JONES,*Ceramic Painting.*

Pupil of St. Louis School of Fine Arts and Franz Bischoff and Otto Punsch.

FREDERICK L. STODDARD,*Design and Water Color.*

Pupil of St. Louis School of Fine Arts, Bouguereau, Ferrier, Laurens, and Constant.

EMILY S. HUTCHINGS, LIBRARIAN,*Lecturer on History of Art.*

Pupil of the Karolinum, Altenburg, Germany, and Missouri State University.

In addition to the regular staff of instructors, pupil teachers are added from time to time from the advanced students working in the school.

GENERAL INFORMATION.

There are three terms in the year.

Students will be admitted at any time; special arrangements being made for those enrolling before or after the term begins.

The school furnishes instruction in Drawing, Modeling, Painting, Artistic Anatomy, Perspective, Composition, Design and Applied Art, Architectural and Mechanical Drawing.

The rooms are open for the study of drawing, painting and modeling, every day during each term from 9 a. m. to 4 p. m. and for the study of drawing from the Antique and Life, mechanical drawing and modeling three evenings in the week, from November to May.

Students may enter any class upon submitting examples of work showing the necessary skill. Applicants for admission to the evening Life Class must submit a drawing of a full length figure from the Antique or Life.

Students who can pass the necessary examination may study Modern Languages, History and Literature in classes of the Undergraduate Department of the University.

The school is fully equipped with models, casts from the Antique, *et cetera.*

The class rooms are adjacent to the galleries of the Museum. The building erected during the past years was especially designed to meet the needs of the various classes of the school and, in its appointments, art students will find every convenience for study.

The artists connected with the school as teachers have received their training in the schools of our own country and in the Art Schools of Europe.

All finished work must be left in the school or if removed by special permission, must be returned before the close of the school year for final examination by the committee appointed for that purpose.

Instruction in all classes of the school is individual. Advancement of each student depends on the degree of proficiency only.

An admission fee of \$2.00 is charged each student on enrolling in the classes of the day school.

TUITION FEES.

TUITION FEES are due and payable to the Treasurer of Washington University, in advance, on enrollment, and on the first of each term. For convenience, the Secretary of the school will receive the fee and transmit it to the Treasurer.

ENROLLMENT FEE Each student pays this fee once \$2 00
The income from eurollment fees is used in library extension work. Students withdrawing before the end of the year in which the fee is paid may continue the use of the library to the close of the year.

RATES OF TUITION. Antique, Life and Portrait Classes, either or all classes, per term	25 00
RATES OF TUITION. Saturday Class, Antique or Sketch Class, per term	5 00
Students will be admitted to the Day School, per month, with the privilege of one or more classes per day, first month	12 50
Each following month during the term or the year	10 00

EVENING LIFE CLASS. Drawing or Modeling, three times per week, for term of twelve weeks	\$7 50
EVENING CLASS. Antique (drawing from casts), three times per week, for term of twelve weeks	5 00
EVENING CLASS. Elementary (free hand), three times per week, for term of twelve weeks	5 00
EVENING CLASS. Architectural and Mechanical Drawing, three times per week, for term of twelve weeks	5 00
EVENING CLASS. Modeling, three times per week, for term of twelve weeks	5 00

CLASSES IN DESIGN AND CERAMIC DECORATION.

Regularly enrolled Art Students will receive instruction in Design without extra charge.

For instruction in Ceramic Decoration an additional fee, per term, of \$7.00 will be charged.

Special students will be admitted to these classes per term of twelve weeks

\$25 00

Students enrolled for one month, first month

12 50

Each succeeding month

10 00

For a period less than one month, including freedom of Museum and Library, per week

5 00

For those desiring to work three days each week, every other day, the privilege will be given to work half

the day in Ceramic Decoration and the other half of

the same day in one of the other classes of the

School, per term

25 00

ARRANGEMENT OF CLASSES.**MORNING.****CLASSES IN THE ANTIQUE.**

Drawing from the Cast, elementary and advanced, daily, 9 to 12 a. m. Charles P. Davis, Instructor.

LIFE CLASS, NUDE AND DRAPED.

Drawing and Painting from the Nude and Costumed Model in Charcoal, Pastel and Oil Color, daily, except Saturday, 9 to 12 a. m. Edmund H. Wuerpel, Instructor.

CERAMIC PAINTING.

Decoration of China, Porcelain, and Glass, Tuesdays, Thursdays and Saturdays, 9 to 12 a. m. Henrietta Ord Jones, Instructor.

COMPOSITION IN COLOR.

Wednesdays, 11:30 to 12:30. Edmund H. Wuerpel, Instructor.

COMPOSITION AND ILLUSTRATION IN BLACK AND WHITE.

Wednesdays, 11:30 to 12:30. Charles P. Davis, Instructor.

ARTISTIC ANATOMY.

Fridays, 12:15 to 1:00. Edmund H. Wuerpel, Instructor.

SKETCH CLASS IN BLACK AND WHITE.

Daily, 12:30 to 1 p. m. Free to all students.

PERSPECTIVE.

Mechanical and Freehand Perspective, Shades and Shadows. Winter term, Tuesdays and Fridays, 12 to 12:30 p. m. Charles Ward Rhodes, Instructor.

AFTERNOON.

PAINTING FROM THE HEAD.

Drawing and Painting from the Head in Charcoal, Pastel and Oil Color, daily, except Saturday, 1 to 4 p. m. Richard E. Miller, Instructor.

PAINTING FROM STILL LIFE.

Oil and Water Color, daily except Saturday, 1 to 4 p. m. Edward M. Campbell, Instructor.

CERAMIC PAINTING.

Decoration of China, Porcelain and Glass, Mondays, Wednesdays and Fridays, 1 to 4 p. m. Henrietta Ord Jones, Instructor.

CLASSES IN DESIGN AND APPLIED ART.

Book Cover Designing, Drawing for Illustration, Decoration of Wood and Leather by means of Pyrography (wood burning) and the Application of Color, Stained Glass Designing, Designing for Posters and Advertising Purposes, Decorative Composition, and Surface Decoration as applied to China, Embroidery and other surfaces, daily, except Saturday, 1 to 4 p. m. Frederick L. Stoddard, Instructor.

MODELING.

From Architectural Ornament, the Antique, and Life, daily except Saturday, 1 to 4 p. m. Robert P. Bringhurst, Instructor.

TEACHERS' COURSE.

Free-hand Drawing from Model, Object, Antique, and Life. Mechanical and Geometrical Drawing. Graphical Solution of Problems in Plane Geometry. Plans, Sections and Elevations. Perspective, Shades and Shadows. Color—Simple Forms in Wash and Water Color. Sketching from Simple Forms in Still Life. Oil Color, Still Life; Sketching from

Nature, Landscape and Life, in Oil, Water Color, and Black and White. Decoration of Various Forms, Porcelain, Pottery, etc.

Modeling — Simple Forms from Nature and Cast; Life. Application of Modeling to Various Forms of Decoration.

EVENING CLASSES.

ANTIQUE, ELEMENTARY, AND ADVANCED.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Charles P. Davis and Edward M. Campbell, Instructors.

LIFE CLASS FROM THE NUDE.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Richard E. Miller, Instructor.

MODELING.

Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Robert P. Bringhurst, Instructor.

MECHANICAL DRAWING.

Geometrical Solids and Machine Details, etc. Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Oscar W. Raeder, Instructor.

ARCHITECTURAL DRAWING.

Plans, Elevations and Assembled Drawings, Perspective, Orthographic Projection, etc. Monday, Tuesday, and Thursday, 7:30 to 9:30 p. m. Oscar W. Raeder, Instructor.

SATURDAY CLASSES.

JUVENILE CLASS.

Drawing from the Cast and Still Life. Sketching in Water Color, 9 to 12 a. m. Grace Hazard, Instructor.

CLASS IN ILLUSTRATION IN BLACK AND WHITE.

9 to 12 a. m. Edmund H. Wuerpel, Instructor.

ADVANCED CLASS.

Drawing from Antique. 9 to 12 a. m. Charles P. Davis, Supt.

CLASS IN ILLUSTRATION AND SKETCHING IN COLOR.

9 to 12 a. m. Richard E. Miller, Instructor.

TEACHERS' COURSE.

9 to 12 a. m. Frederick L. Stoddard, Instructor.

OUT-OF-DOOR SKETCHING, LANDSCAPE AND FIGURE.

Upon recommendations from their teachers classes will be formed from among the advanced students during the month of May, daily, 9 a. m. to 4 p. m. Criticisms by the various Instructors.

NOTES ON COURSE OF INSTRUCTION.

I.

In the Antique Classes the method of instruction aims to teach the students to construct their drawings in a simple and correct manner. By the use of antique and modern forms as models from which to draw, the student is trained to perceive planes and values, light and shade, and is taught to economize time and effort when striving to produce an effect. By this means a foundation is laid for the further training of the draughtsman, modeler and painter in the more advanced classes.

II. STILL LIFE PAINTING CLASS.

Students begin the study of color in this class. They are first taught to observe and represent simple masses of form and color such as are found in fruits and vegetables. They are then given more difficult combinations, reflected lights and values such as are found in objects made in richly colored metals or other materials. They are also encouraged to make careful studies of drapery. The student may work in oil or water color, but whatever medium may be used, a truthfulness in form, color and value, simplicity of treatment, and close study of texture are required.

III. MODELING CLASS.

The work of the modeling class is of a threefold nature. First, there are a small number of students who study modeling with the intention of becoming sculptors; these

students have every opportunity to study from the living model and also receive instruction in anatomy. Second, a large proportion of students study modeling in order to gain a more accurate knowledge of form and proportion to aid them in their drawing and painting. These students work from the cast as well as from the living model, both nude and draped. The third class is composed largely of artisans working to acquire a knowledge of decorative form and ornament as used in architecture. To this end they work chiefly from casts of ornaments and figures from the antique and renaissance periods.

IV. HEAD AND PORTRAIT CLASS.

The purpose of study in the Head and Portrait Class is to accustom the student to grasp the essential character of the model.

Firm construction in drawing is insisted upon; also attention to the salient characteristics in form and color.

Students are taught to sacrifice unimportant and unnecessary details in form and in color, by this means gaining simplicity and strength in their work. Freedom of conception and execution is encouraged. The study of color values is insisted upon as more important than brush work and technique.

V. LIFE CLASS.

The last step in the academic training of the art student is the study from the living model. In the study from the nude, facility in construction, observation of character, correctness of proportions and values and a fearlessness of execution are essential. In painting from the

nude, simplicity of form, value and color, must follow good drawing. Method of execution is entirely individual whether in black and white or in color. The placing of the figure or object on canvas, with a view to composition, is demanded. In the advanced studies, the background is called for, and atmospheric relief expected.

VI. DRAWING FOR ILLUSTRATION.

The purpose of this class is to give the student a knowledge of drawing and pictorial composition and to apply this knowledge to the production of illustrations in various forms. At first the work is from casts, natural forms and drapery and later drawings are made from the living figure draped and nude. Constant effort is directed to the cultivation of a quickness of observation, the ability to draw correctly, the selection and arrangement of the material within the picture and an absolute simplicity of expression.

The various methods used are: THE POINT, the pencil, pen, and chalk — THE BRUSH, in gouache and wash; and COLOR, in oil, aquarelle, and pastel.

In black and white the student is urged to search for indicative rather than an absolute or real method of expression. Freedom of individual execution is encouraged.

In color the value and correctness of tone are considered above finish and execution.

In addition the student is impressed with the limitations imposed by the processes through which his drawing is transferred to the printed page. The aim is to familiarize the student with the requirements of these processes

as well as to develop artistic feeling and the technical capacity to express it.

VII. CLASS IN APPLIED ART.

CERAMIC DECORATION.

The aim of this class is to give the students a practical knowledge of painting on china, glass, etc. Particular attention is given to the development of originality in design and simplicity in treatment. The student is first taught to make a careful and intelligent study of the shape to be decorated and the space to be covered. Special attention is given to the application of conventional ornament as well as realistic forms. All firing is done in the building of the school so that a thorough knowledge may be obtained in the use of the Kiln.

The students of this class will have the privilege of studying the large collections of decorated porcelain in the galleries of the Museum, comprehending examples of Doulton, Royal Worcester, Crown Derby, Danish, and Swedish ware. There are also collections of Old Chinese, Wedgewood and Rosenberg potteries.

VIII.

In accordance with the announcement made some time ago arrangements have been completed for the organization of classes in Design and Applied Art. Instruction will be given in the following subjects: Book Cover Designing, Drawing for Illustration, Decoration of Wood and Leather by means of Pyrography (wood burning) and the Application of Color, Stained Glass Designing,

Designing for Posters and Advertising Purposes, Decorative Composition, and Surface Decoration as applied to China, Embroidery and other surfaces.

Mr. Frederick L. Stoddard and Miss Henrietta Ord Jones have been added to the corps of instructors of the School. Classes in Design and Water Color will be under the supervision of Mr. Stoddard, and those in Ceramic Decoration will be under the instruction of Miss Jones.

All students of the School have access to the Library, which contains a large collection of books and plates referring to the above subjects.

By Applied Art is meant the practical carrying out of the design in the material for which the drawing has been made.

IX. MECHANICAL AND ARCHITECTURAL DRAWING.

Classes in these subjects are held only at night. Owing to the variety of knowledge and ability possessed by the student the instruction is largely individual.

Mechanical Drawing includes the following branches:

I. Plane Geometrical Drawing, Orthographic Projection, Intersection of Solids and Development of Surfaces.

II. Drawing of Machine Details from measurement.

III. The making of Assembled Drawings.

IV. Tracing.

The purpose of instruction is to teach students how to make practical working drawings, and to read them with ease.

In the Architectural Drawing Class beginners are taught how to use their instruments, and to make neat and accurate line drawings. Instruction is given in the preparation of plans, elevations and working drawings for various kinds of buildings. Advanced students are taught Perspective Drawing, and the Drawing of ornamental forms for decorative purposes.

CLASS LECTURES.

Class Lectures upon the History of Painting, the Graphic Arts, Artistic Buildings and Localities, and other subjects relating to the History of Art Development from the earliest period to the present time, are given in the Lecture Hall every Tuesday morning at 11:30, by a special corps of lecturers. The character and scope of these lectures may be judged from the following synopsis of the course for 1901-1902.

All lectures are fully illustrated by stereopticon views and examples from the Museum Collections.

Mythology (fifteen lectures).	<i>Emily S. Hutchings.</i>
Modern Painting (two lectures).	<i>Chas. M. Kurtz.</i>
Painting in America.	<i>Chas. Ward Rhodes.</i>
A Practical Demonstration of How a Sculptor does His Work.	<i>R. P. Bringhurst.</i>
Practical Application of the Art of Design.	<i>F. L. Stoddard.</i>
Modern Collections (two lectures).	<i>E. H. Wuerpel.</i>
Perspective (twelve lectures).	<i>Chas. W. Rhodes.</i>
Composition (elementary), Black and White and Color (once a week).	<i>Chas. P. Davis.</i>
Composition (advanced), Black and White and Color (once a week).	<i>E. H. Wuerpel.</i>
Artistic Anatomy (eight lectures).	<i>E. H. Wuerpel.</i>

June 10th, 1901.

PROF. HALSEY C. IVES,
Director.

DEAR SIR: The Jury of Awards after a careful examination of the works submitted in the competition for Honors for the year 1900-1901 unanimously recommend the following: —

ANTIQUES CLASS.

- Miss Agnes Lodwick, Silver Medal.
Miss Mary Davidson, Bronze Medal.
Miss Nannie Drake, Hon. Mention.

CLASS IN DESIGN.

- Miss Mary Spaulding, Silver Medal.
Miss Mary Davidson, Bronze Medal.
Mr. Paul Halleck, Hon. Mention.
Miss Louise Mather, Hon. Mention.

STILL LIFE CLASS.

- Miss Eloise Long, Silver Medal.
Miss Nannie Drake, Bronze Medal.
Miss Tillie Vordtriede.

LIFE CLASS (Color).

- Miss Beatrice Benson, Silver Medal.

LIFE CLASS (Black and White).

- Miss Lyna Chase, Silver Medal.
Mr. Clarence Cadwallader, Bronze Medal.
Miss Katheryn Cogswell, Hon. Mention.

COMPOSITION CLASS.

- Miss Beatrice Benson, Silver Medal.
Miss Katheryn Cogswell, Bronze Medal.
Miss Laura Franklin, Hon. Mention.

SATURDAY SKETCH CLASS (Color).

- Miss Beatrice Benson, Silver Medal.
Miss Katheryn Cogswell, Bronze Medal.
Miss Ethel Franklin, Hon. Mention.

SATURDAY SKETCH CLASS (Black and White).

Mr. Clarence Cadwallader, Book Prize.

Miss Katheryn Cogswell, Hon. Mention.

MODELING CLASS (Life).

Mr. John G. Stuart, Bronze Medal.

Miss Caroline Wood, Hon. Mention.

MODELING CLASS (Antique).

Miss Sophie Massie, Bronze Medal.

Miss Agnes Lodwick, Hon. Mention.

PORTRAIT CLASS (Color).

Miss Alice Herthel, Bronze Medal.

Miss Katheryn Cogswell, Hon. Mention.

PORTRAIT CLASS (Black and White).

Mr. Clarence Cadwallader, Silver Medal.

Miss Lyna Chase, Bronze Medal.

Mr. Fred Gray, Hon. Mention.

CLASS IN CERAMICS.

Miss Fannie Alexander, Silver Medal.

Miss Nellie Sullivan, Bronze Medal.

Mrs. Ella Louthan, Hon. Mention.

Miss Hermine Brunner, Hon. Mention.

We desire to congratulate the teachers upon the maintenance
of the usual high standard of the School.

(Signed) **EDITH COLBY,**

(Signed) **RALPH C. OTT,**

(Signed) **HOLMES SMITH.**

The Wayman Crow Medal, for the most satisfactory progress
in all classes, is unanimously voted, by the instructors, to Miss
Lyna Chase.

THE ST. LOUIS MUSEUM OF FINE ARTS.

The Museum of Fine Arts has a valuable permanent collection of statuary, paintings, pottery, carvings, etc., which affords the public, as well as students, an indispensable aid to the study of art; and in order that opportunity may be given for studying the methods of the different schools of painting and the works of celebrated artists, arrangements have been made for a series of fine exhibitions of oil and water color paintings, architectural drawings and engravings.

Any one desiring to become a member of the Museum of Fine Arts may do so by the annual payment of \$10.00. This membership entitles him, with his family and non-resident guests, to the privilege of visiting the Museum at all times when open to the public, and to all lectures, receptions, and special exhibitions given under the auspices of the Board of Control.

SCHOOL OF FINE ARTS.

Students enrolled from date of issue of last catalogue, February 19, 1901, to March 1, 1902.

NAME.	ADDRESS.
Alexander, Frances	Gallatin, Mo.
Ball, Ruth N.	5577 Cabanne av.
Bay, Lillian	6025 Suburban av.
Becraft, Cecil	4656 Page av.
Beers, Ella	Hotel Beers.
Bevis, Mildred	4175 West Belle pl.
Blackman, Barbara A.	5848 Bartmer av.
Bohn, Mrs. E. J.	2826 Locust st.
Bribach, Carrie	521 Loughborough av.
Bridges, Wm.	3827 Finney av.
Brinson, Sarah E.	Benton Station.
Brouson, G. Maud	Sedalia, Mo.
Brower, Edwin	East St. Louis, Ill.
Brown, Hazelwood	4860 Fountain av.
Brownlee, Isabel D.	4210 Westminster pl.
Brunner, Hermine	622 Bates av.
Buckholz, John	3222 Chouteau av.
Burgher, Byrd	Dallas, Texas.
Carpenter, F. G.	4301 West Belle pl.
Cato, Dean	2215 Locust st.
Chandler, Mrs. Katie A.	3646 Finney av.
Chase, Lyna M.	Hillside, Mo.
Christ, Emilie	Evansville, Ind.
Cole, Marian	Chester, Ill.
Collins, Edith	3821 Westminster pl.
Corwin, Cora	5572 Clemens av.
Dates, Alice M.	6704 S. 6th st.
Daughaday, C. C.	Carlsbad, New Mexico.
Davenport, Enos H.	5616 Bartmer av.

NAME.	ADDRESS.
Delano, Mrs. L.	1761 McLaran av.
Drake, Nannie	Warsaw, Mo.
Eby, Margery	Glendale, Mo.
Evans, Carle	Sutton, W. Va.
Fix, Edwin	2016 N. 9th st.
Flaig, Theresa	1033 Holland st.
Franklin, Laura	Kirkwood, Mo.
Gimbel, Hortense	741 Bayard av.
Gray, Fred	4209 Cleveland av.
Gunn, Lucile	2130 DeSoto av.
Hall, Ruth	3006 Lawton av.
Halleck, Paul P.	Kansas City, Mo.
Harrison, Louise	3747 Westminster pl.
Harvey, Mae	Maryville, Mo.
Hazard, Grace	Kirkwood, Mo.
Hazard, Virginia	Webster Groves, Mo.
Hill, Raymond	Marissa, Ill.
Hoehn, Veronica	St. Charles, Mo.
Houck, Tula V.	1742 Waverly pl.
Hough, May	2909 St. Vincent st.
Irish, Margaret H., Mrs.	Mo. Botanical Garden.
Johns, Chas. F.	3958 Cook av.
Johnson, Wm. W.	Verona, Miss.
Katz, Alma	5182 Cabanne av.
Kendall, Alice	Kirkwood, Mo.
Kennedy, Margaret R.	3670 Pine st.
Kirby, Ellwood	5103 Washington av.
Kirchner, Geo.	2938a Lucas av.
Knapp, Genevieve	Westmoreland Hotel.
Knight, Augusta	Carthage, Mo.
Krause, Mrs. M. D.	4018 Cleveland av.
Leonard, Robert B.	4350 Maryland av.
Lewis, Caroline	Bowling Green, Mo.
Lodwick, Agnes I.	Ferguson, Mo.
Long, Eloise C.	4382 Maryland av.

NAME.	ADDRESS.
Louthan, Mrs. Ella Spurr	5356 Page av.
McKee, Vida	Kansas City, Mo.
McKeen, Emma C.	3749 Delmar av.
McKillop, Wm.	3581 Olive st.
McLain, Luella	5190 Maple av.
Maas, Chester	Portage de Sioux, Mo.
Manius, Albinus	2937 Dayton st.
Martyn, Marguerite	Springfield, Mo.
Massey, Grace	3513 Morgan st.
Massie, Sophia McD.	3650 Lindell boul.
Mather, Louise	Atchison, Kan.
Matthews, Wm.	1925 Pennsylvania av.
Metzger, Lulu	Little Rock, Ark.
Meyer, Albert C.	4375 Chouteau av.
Mier, Estelle K.	7111 Michigan av.
Moll, May L.	4919 Terry av.
Murray, Elizabeth	4149 Russell av.
Nagel, Hildegarde	3969 Washington av.
Nash, Manley K.	4320 St. Louis av.
Noonan, Florence	1837 Madison st.
Nye, Ethel	5531 Maple av.
O'Brien, Helen F.	1605 Chambers st.
O'Hara, Beulah	4206 Lindell boul.
Overstolz, Katharine	3439 Washington av.
Painter, Anna M.	Duquoin, Ill.
Parks, Mrs. Doris	1027 Goodfellow av.
Phelps, Mrs. A. D.	3929 McRee av.
Reed, Beulah	3214 Newstead av.
Riess, Mrs. Walter	1729 Ohio av.
Scammell, Elizabeth	3805 Pine st.
Schaper, Louise	3428a Meramec st.
Schuchmann, A.	1525 Missouri av.
Scott, Mary Semple	3516 Morgan st.
Stirling, Mary P.	Barton, Ark.
Stitt, Herbert D.	Hot Springs, Ark.

NAME.	ADDRESS.
Strchi, Eda	Olney, Ill.
Stuart, John Guy	4010 West Belle pl.
Sutter, Belle	1323 Taylor av.
Taylor, Helen	4102 Cook av.
Thalinger, Oscar	4649 Maffitt av.
Vordriede, Tillie	2019 Sidney st.
Wagenman, Gertrude H.	5187 Morgan st.
Wakefield, Chas. H.	Gridley, Kan.
Walker, Evelyn	2757 Russell av.
Wall, Irene A.	4582 Virginia av.
Walsh, Jas.	216 Mound st.
Warner, Fred. M.	Macon, Mo.
Warren, Mrs. I. B.	4881 Delmar av.
Weber, Minnie	San Antonio, Tex.
Wills, Lila	Alton, Ill.
Zimmerman, Elinor	4160 Maryland av.
 Students working full time	115
Students working part time	103
Students working in night classes	120
 Total number enrolled	338

ST. LOUIS LAW SCHOOL.

(LAW DEPARTMENT OF WASHINGTON UNIVERSITY.)

CALENDAR, 1901-1902.

LAW SCHOOL opens **Thursday, September 26, 1901.**

HOLIDAY, THANKSGIVING DAY, Thursday, November 28, 1901.

VACATION, December 24, 1901, to January 1, 1902, inclusive.

HOLIDAY, WASHINGTON'S BIRTHDAY, Friday, February 22, 1902.

UNIVERSITY HOLIDAY, Friday, May 9, 1902.

COMMENCEMENT, Thursday evening, June 19, 1902.

VACATION, from June 20 to September 25, 1902.

EXAMINATIONS FOR ENTRANCE TO SENIOR CLASS, Tuesday, September 23, 1902.

LAW SCHOOL opens **Thursday, September 25, 1902.**

HOLIDAY, THANKSGIVING DAY, Thursday, November 27, 1902.

VACATION, from December 24, 1902, to January 1, 1903, inclusive.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,
Chancellor of Washington University.

WILLIAM S. CURTIS, LL.B.,
Dean of the Law Faculty.

AMOS M. THAYER, LL.D. (U. S. Circuit Judge),
Professor, Real Property Law and Equity.

CHARLES NAGEL, LL.B.,
Professor, Law of Contracts and Commercial Law.

GUSTAVUS A. FINKELBURG,
Lecturer, International Law.

EDWARD C. ELIOT, LL.B.,
Lecturer, Sales and Bailments.

PENDLETON T. BRYAN, LL.B.,
Lecturer, Torts and Negligence.

CHARLES P. JOHNSON, A.M.,
Lecturer, Criminal Law.

FREDERICK N. JUDSON, LL.D.,
Lecturer, Comparative Jurisprudence.

ISAAC H. LIONBERGER, A.M.,
Lecturer, Corporations, Statutes of Limitations and Frauds.

LEE SALE, LL.B.,
Lecturer, Partnership.

PAUL F. COSTE, LL.B.,
Lecturer, Bills and Notes.

C. O. BISHOP, LL.B.,
Lecturer, Criminal Law.

EDWARD S. ROBERT, LL.B.,
Lecturer, Evidence.

JAMES P. MAGINN, LL.B.,
Lecturer, Administration.

HENRY T. KENT, LL.B.,
Lecturer, Jurisdiction of Federal Courts.

DANIEL N. KIRBY, LL.B.,
Lecturer, Agency.

ADVISORY AND EXAMINING BOARD.

LEROY B. VALLIANT, Justice of the Supreme Court of Missouri.

WARWICK HOUGH, late Justice of the Supreme Court of Missouri.

SHEPARD BARCLAY, late Justice of the Supreme Court of Missouri.

ELMER B. ADAMS, United States District Judge.

SAMUEL TREAT, LL.D., United States District Judge (retired).

HENRY S. PRIEST, late United States District Judge.

WILLIAM H. BIGGS, late Judge of St. Louis Court of Appeals.

HENRY W. BOND, Judge of St. Louis Court of Appeals.

C. C. BLAND, Judge of St. Louis Court of Appeals.

R. A. BAKEWELL, late Judge of St. Louis Court of Appeals.

SEYMOUR D. THOMPSON, late Judge of St. Louis Court of Appeals.

JACOB KLEIN, late Judge of St. Louis Circuit Court.

JAMES E. WITHROW, late Judge of St. Louis Circuit Court.

DANIEL D. FISHER, Judge of St. Louis Circuit Court.

HORATIO D. WOOD, Judge of St. Louis Circuit Court.

DANIEL DILLON, late Judge of St. Louis Circuit Court.

WILBUR F. BOYLE, late Judge of St. Louis Circuit Court.

GEORGE W. LUBKE, late Judge of St. Louis Circuit Court.

JAMES A. SEDDON, late Judge of St. Louis Circuit Court.

WALTER B. DOUGLASS, Judge of St. Louis Circuit Court.

JOHN W. NOBLE,
EDWARD C. KEHR,
ABBA N. CRANE,
JAMES TAUSSIG,
JOHN W. DRYDEN,
EDW. CUNNINGHAM, JR.,
GEORGE H. SHIELDS,
CHAS. CLAFLIN ALLEN,
JOHN M. HOLMES,
LEVERETT BELL,
EDWARD T. FARISH,
EVERETT W. PATTISON,
JOHN E. McKEIGHAN,
HUGO MUENCH,
ELENEIOUS SMITH,
JAMES P. DAWSON,
DAVID GOLDSMITH,
FRED A. WISLIZENUS,
JOHN A. HARRISON,
WELLS H. BLODGETT,
E. T. ALLEN,
JOHN F. LEE,
JOHN D. DAVIS,
JAMES L. BLAIR,
WILLIAM B. HOMER,
FRED'K W. LEHMANN,
THOMAS K. SKINKER,
ROBERT F. WALKER,
WALTER D. COLES,
JAMES HAGERMAN,
JESSE A. McDONALD,
ALBERT ARNSTEIN,
HARVEY L. CHRISTIE,
WILLIAM E. FISSE,
J. HUGO GRIMM,
PAUL BAKEWELL,
WM. E. GARVIN,
GEO. R. LOCKWOOD,
JOHN F. SHEPLEY,
A. C. STEWART,

Of the St. Louis Bar.

COMMITTEES OF EXAMINATION.**FOR THE YEAR 1901.**

For the Examination of Candidates for Graduation.

PAUL BAKEWEEL,
SHEPARD BARCLAY,
HARVEY L. CHRISTIE,
M. E. GARVIN,
GEO. R. LOCKWOOD,
JOHN F. SHEPLEY,
A. C. STEWART.

For the Award of a Prize of Fifty Dollars for the Best Graduation Thesis.

ALBERT N. EDWARDS,
DANIEL G. TAYLOR,
ALFRED C. F. MEYER.

HONORS, 1901.

TRUMAN POST YOUNG, Thesis Prize.**WILLIAM R. DONALDSON, JR., Alumni Prize.**

The Juniors who passed all the Junior examinations with an average grade of eighty per cent or over, and are therefore entitled to enter the Senior class *cum laude*, are: —

- ALFRED C. WILSON**, St. Louis, 90.15.
ARNOLD LOEWENSTEIN, St. Louis, 87.91.
SAMUEL A. BURGESS, St. Louis, 87.89.
LEWIS LUSTER, West Plains, Mo., 87.72.
JOHN M. COLEMAN, St. Louis, 87.45.
GEORGE W. WAGNER, Jefferson City, Mo., 85.54.
ARTHUR B. CHAMIER, Moberly, Mo., 84.99.
ROBERT KELLEY, Warrensburg, Mo., 84.92.
FRANK K. HIEMENZ, St. Louis, 83.45.
ARTHUR P. BURGESS, St. Louis, 83.41.
RUDOLPH F. BUDER, St. Louis, 82.41.
JOHN M. CARNEY, St. Louis, 82.08.
CHARLES C. MANN, St. Louis, 81.78.
FORD LA B. WILSON, St. Louis, 81.41.
WALTER J. G. NEUN, St. Louis, 81.32.
WILLIAM L. IGOE, St. Louis, 81.11.
CHARLES N. RING, East St. Louis, Ill., 80.61.
ALONZO C. WHITSON, Buffalo, Mo., 80.10.

SENIOR CLASS.

CITY RESIDENCE.

Baldwin, Francis E., Carlinville, Ill.	. . . . .	3554 Lindell boul.
Bassett, Arthur (A.B., 1900, Mo. State Univ.), Paris, Mo.	. . . . .	2812 Locust st.
Baxter, Samuel W. (Ph.B., 1897, Illinois College), Jacksonville, Ill.	. . . . .	2921 Pine st.
Boehmen, Louis L., St. Louis	. . . . .	1643 Texas av.
Boemler, Henry W., St. Louis	. . . . .	4051 McPherson av.
Buckley, Barney E. (A.M., 1891, Heidelberg Univ., Tiffin, O.), St. Louis	. . . . .	6139 Gambleton pl.
Buder, Rudolph F., St. Louis	. . . . .	3321 Shenandoah av.
Burgess, Arthur C., St. Louis	. . . . .	2933 Harper st.
Burgess, Samuel A. (A.B., 1900, Washington Univ.), St. Louis	. . . . .	2933 Harper st.
Carney, John M., St. Louis	. . . . .	3747 Finney av.
Chamier, Arthur B. (A.B., 1895, William Jewell College), Moberly, Mo.	. . . . .	2634 Locust st.
Coleman, John M., St. Louis	. . . . .	1110 N. Channing av.
Cornelius, Stephen, St. Louis	. . . . .	5045 Vernon av.
Crowder, Truman L. (B.S., 1898, Blackburn Univ.), Carlinville, Ill.	. . . . .	2100 Olive st.
Diehm, Walter, St. Louis	. . . . .	1834 Kennett pl.
Doron, Rex S., Harrisonville, Mo.	. . . . .	1604 Locust st.
Dougherty, George (A.B., 1900, Christian Bros. College), St. Louis	. . . . .	1420 Pendleton av.
Droste, Henry, St. Louis	. . . . .	1828 N. Jefferson av.
Eilers, Roy M. (A.B., 1900, Washington Univ.), St. Louis	. . . . .	4935 Easton av.
Ellerbe, Christopher P. (A.B., 1900, Yale Univ.)	. . . . .	Ferguson, Mo.
Falkenhainer, Victor H., St. Louis	. . . . .	3508 Missouri av.
Fechte, John L.	. . . . .	Venice, Ill.
Feuerbacher, Max W., St. Louis	. . . . .	1126 Sidney st.

CITY RESIDENCE.

Geraghty, Francis X., St. Louis	2805 Cass av.
Gorin, Henry J., St. Louis	4202 West Belle pl.
Harrison, Mac Veigh (M.A., 1900, The Univ. of the South), Hannibal, Mo.	2912 Washington av.
Hiemenz, Frank K., St. Louis	3320 Magnolia av.
Hughes, Samuel W., Montgomery City, Mo.	2949 Dayton st.
Igoe, William L., St. Louis	4427 Kossuth av.
Kelley, Robert, Warrensburg, Mo.	2308 Eugenia st.
King, James R., St. Louis	1236 N. King's H'way.
Kinkel, Charles A., St. Louis	751 Bayard av.
Koenig, C. William (B.S., 1893, Buchtel College), St. Louis	2710 S. 13th st.
Leonard, Loyal L. (B.S., 1896, Trinity College), St. Louis	3751 Delmar av.
Loewenstein, Arnold, St. Louis	2702 Henrietta st.
Luster, Lewis, West Plains, Mo.	3803 Finney av.
Mann, Charles C., St. Louis	3944 Shaw av.
Marsh, Henry C. (A.B., 1900, William Jewel College), Fredericktown, Mo.	2614 Locust st.
McDonald, Alexander A. (A.B., 1900, Illinois College), Jacksonville, Ill.	2921 Pine st.
Neun, Walter J. G., St. Louis	3652 Blaine av.
Neville, James T., Springfield, Mo.	
Price, Charles S., Plattsburg, Mo.	2846 Olive st.
Rassieur, Leo G., St. Louis	2335 Whittemore pl.
Rickert, Nelson A., Waterloo, Ill.	3660 Flad av.
Riegel, Jerome A., Moberly, Mo.	2949 Dayton st.
Riley, Henry C., Jr., New Madrid, Mo.	3854 Delmar av.
Ring, Charles N., East St. Louis, Ill.	
Rodgers, James R., St. Louis	3706 Pine st.
Shull, Charles G. (B.S., 1897, William Jewell College), Odessa, Mo.	2634 Locust st.
Staed, Mark A. (A.M., 1898, George- town Univ.), St. Louis	3532 Page av.

CITY RESIDENCE.

Steiner, Nathan, St. Louis	
Ward, John J., Jacksonville, Ill.	
Wesseler, William J. (A.B., 1900, Wash-	
ington Univ.), St. Louis	2819 S. 13th st.
Whitehill, Hibbard C., St. Louis	5016 Morgan st.
Whitson, Alonzo C., Buffalo, Mo.	
Wilson, Ford LaB., St. Louis	5900 Cates av.

JUNIOR CLASS.

Atkinson, Robert L. (A.B., 1901, Yale Univ.), St. Louis	4201 Washington av.
Barker, Harry C., St. Louis	2021 Obear av.
Behrens, Aaron J., Buffalo, Mo.	2242 Adams st.
Boyd, Willard W., Jr., St. Louis	5321 Waterman av.
Brokaw, Linn R. (A.B., 1901, Princeton Univ.), St. Louis	3200 Lucas av.
Carroll, J. E., St. Louis	1402 N. 13th st.
Chiles, James A. (A.M., 1898 Vanderbilt Univ.), St. Louis	3634 Russell av.
Clifford, William H., Turpin, Mo.	4039 Morgan st.
Comley, John C., Canton, Mo.	717 N. Garrison av.
Creech, B. J., Troy, Mo.	
Davis, Dwight F. (A.B., 1900, Harvard Univ.), St. Louis	17 Westmoreland pl.
Davis, John L. (A.B., 1900, Princeton Univ.), St. Louis	51 Vandeventer pl.
Dorris, Orville B. (A.B., 1899, Missis- sippi College), Winona, Miss.	
Duchouquette, John B., Fredericktown, Mo.	{ 522½ N. Vandeven- ter av.
Dysart, Thomas N., Macon, Mo.	3033 Washington av.
Ellis, John P. B., Flora, Ill.	3028 Laclede av.
Erwin, Claude M., Newport, Ark.	3121 Locust st.
Finney, William B. (A.M., 1898, George- town Univ.), St. Louis	5617 Chamberlain.

	CITY RESIDENCE.
Foster, James M. (A.B., 1901, St. Louis Univ.), St. Louis	. . . . . 4650 S. Broadway.
Gallaher, Victor, Warrensburg, Mo.	. . . . . 2308 Eugenia st.
Gillespie, John W., St. Louis	. . . . . 4632 Bell av.
Gordon, Robert L. (A.M., 1898, Kentucky State College), St. Louis	. . . . . 3510 Franklin av.
Greensfelder, Miss Hattie, Central, St. Louis, Co., Mo.	. . . . .
Griffin, Everett P. (A.B., 1901, Washington Univ.), St. Louis	. . . . . 2842 Lawton av.
Hill, David S. (A.B., 1897, Harvard Univ.), St. Louis	. . . . .
Hickley, Theodore C., St. Louis	. . . . . 3010 Locust st.
Howard, Joseph J., St. Louis	. . . . . 338 N. Sarah st.
Kelly, Walter A. St. Louis	. . . . . 411 St. George st.
Kirby, Benjamin (A.B., 1900, Illinois College), Tallula, Ill.	. . . . . 3006 Locust st.
Knight, David M. (A.B., 1899, Washington and Jefferson College), St. Louis	. . . . . 907 N. Theresa av.
Koehler, Joseph F., Jackson, Mo.	. . . . . 1011 Dillon st.
Kresse, Oscar F., East St. Louis, Ill.	. . . . .
Lehmann, Sears, St. Louis	. . . . . 10 Benton pl.
Lindsay, T. T., Charlestown, Mo.	. . . . . 2644 Olive st.
Marbury, Horatio L. (B.S., 1890, Bellevue Collegiate Institute, Caledonia, Mo.)	. . . . . 2215 Locust st.
Mayer, Louis, St. Louis	. . . . . 4908 Berlin av.
McAtee, Joseph C., St. Louis	. . . . . 3204a Newstead av.
McCormick, Robert E., Fredericktown, Mo.	. . . . . 1128 Leonard av.
Miller, Franklin (A.B., 1901, Missouri State Univ.), Memphis, Mo.	. . . . . 3036 Washington av.
Moberly, Victor T., Humphreys, Mo.	. . . . . 4418 N. 21st st.
Moore, William D. (A.B., 1901, Missouri State Univ.), St. Louis	. . . . . 1418 Wittenberg av.

CITY RESIDENCE.

Nichols, Eugene J., Manchester, Mo.		
Parrott, Alfred F. (A.M., 1899, Harvard Univ.), St. Louis	3739 Windsor pl.	.
Pierson, Ralph, St. Louis	4415 Delmar boul.	.
Powell, Robert C., St. Charles, Mo.		.
Prosser, Paul P. (A.B., 1900, Central College), Fayette, Mo.	709 N. Ewing av.	.
Reynolds, George V. (A.B., 1901, Yale Univ.), St. Louis	4239 Lindell boul.	.
Roberts, Charles V. (A.B., 1901, St. Louis Univ.), St. Louis	3740 Lindell boul.	.
Scheel, Frederick E., Belleville, Ill.		.
Scullin, Marion R., St. Louis	3142 Locust st.	.
Seger, Chris. H., Anna, Ill.	3152 Locust st.	.
Spencer, Curran, Joplin, Mo.	3936 Washington av.	.
St. Jean, Stephen L., St. Louis	3743 Allen av.	.
Trice, Walter E., Cameron, Mo.	2712 Locust st.	.
Triesler, Henry G., St. Louis	1448 Dolman st.	.
Unger, William C. (A.M., 1894, St. Francis Solanus College), St. Louis	1353 N. Garrison av.	.
Van Cleve, William M., Macon, Mo.	3033 Washington av.	.
Vandivort, Clyde A., Cape Girardeau, Mo.	2120 Locust st.	.
Walton, Alfred D., Farmington, Mo.		.
Webb, Elmer, Belleville, Ill.		.
White, Franklin M. (A.B., 1901, St. Louis Univ.), St. Louis	Usona Hotel.	.
Young, William A. (Ph.B., 1901, New York Univ.), New York City	3411 Morgan st.	.
Seniors		56
Juniors		62
Total		118

GENERAL INFORMATION.

The St. Louis Law School was established as a department of Washington University in 1867. A class was graduated in 1869, and one class each year since. It occupies exclusively a commodious building, No. 1417 Locust Street, containing all necessary lecture rooms, offices, library rooms, etc. The library contains more than 8,000 volumes, devoted solely to the uses of the school. By the courtesy of The St. Louis Law Library Association, the students also have access on Saturday to its library. The special endowment of the Law School now amounts to \$77,000.

The method of instruction is rather by text-book than by collections of cases, and very little is done in the way of mere lectures. The daily exercises of the school are really recitations. The following figures give the enrollment during the last eight years: —

	SENIORS.	JUNIORS.	GRADUATED
1894-5	37	94
1895-6	54	95
1896-7	58	101
1897-8	59	85
1898-9	61	81
1899-1900	47	94
1900-1901	58	69
1901-1902	56	62

ADMISSION.

Applicants for admission to the school must have a preliminary education equivalent to a four years' High School course.

A college diploma, proof of admission to college, or certificate of graduation from a High School having a four years' course, will be received as evidence of fitness to enter. Applicants not presenting such documentary evidence may pass an examination to test their substantial compliance with the above requirement.

In the case of candidates for the Senior Class who have previously been members of the Junior Class, the examinations of that year will suffice, if creditably passed; and those who failed to pass, may upon further study, apply again for examination in September, provided their record is not too unsatisfactory. The regular examinations for this purpose will begin on Tuesday, September 23rd, 1901, at 9 a. m. at the Law School, 1417 Locust Street.

New applicants for admission as Seniors will be examined at the same time, and upon the following subjects: Commercial Paper, Sales, Bailments, Agency, Torts, Criminal Law, and Common Law or Code Pleading.

Admission to the Junior Class may be had at any time during the year; to the Senior Class, after the examination in September, it will be granted only upon special examination, at a time fixed by the Dean upon application, not later than the first week of school after the Christmas holidays; and no person will be admitted a member of the Senior Class as a candidate for a degree after that time; nor at any time upon any certificate of attainments, or previous study or attendance elsewhere.

COURSE OF STUDY.

The course for the degree of LL.B. is two years of thirty-six weeks each, exclusive of holidays. The recitations are held at 8:45 to 9:45 a. m., and at 5 to 6 p. m., with a few additional recitations at 4 p. m. Moot Court on Saturday mornings. Written examinations are at 2 p. m., at intervals throughout the year upon the completion of each topic.

JUNIOR CLASS.

ELEMENTARY LAW. *Robinson and Blackstone.* Forty recitations. Curtis.

CONTRACTS. *Bishop*, and case-book. Thirty-five recitations. Nagel.

AGENCY. *Hufcut.* Twenty-five recitations. Kirby.

TORTS. *Cooley.*

NEGLIGENCE. *Barrows.*} Sixty-two recitations. Bryan.

SALES. *Benjamin.*

BAILMENTS. *Hale.*} Sixty-two recitations. Eliot.

BILLS AND NOTES. *Norton.* Twenty recitations. Coste.

CRIMINAL LAW. *May.* Twenty recitations. Bishop. Johnson.

PLEADING. { Common Law. *Martin.*} Forty recitations.

Code. *Pattison.*} Curtis.

DAMAGES. *Sedgwick.* Fifteen recitations.

SENIOR CLASS.

REAL PROPERTY. *Tiedeman.*} Eighty recitations. Thayer.

EQUITY. *Eaton.*

CORPORATIONS. *Elliott.*} Forty-one recita-

STATUTES OF FRAUDS AND LIMITATIONS. } tions. Lionberger.

DOMESTIC RELATIONS. *Schouler.*

CONSTITUTIONAL LAW. *Cooley*, and case-book. } tions. Curtis.

EVIDENCE. *Greenleaf.* Thirty recitations. Robert.

ADMINISTRATION. *Abbott.* Twenty recitations. Maginn.

JURISDICTION OF FEDERAL COURTS. Ten recitations. Kent.
INTERNATIONAL LAW. Fifteen recitations. Finkelnburg.
PARTNERSHIP. *Mechem*, and case-book. Twenty recitations.
Sale.

COMPARATIVE JURISPRUDENCE. Fifteen recitations. Judson.
MOOT COURT. Once a week for both classes.

The above courses are subject to slight changes from year to year.

GRADUATION.

Members of the Junior Class, in order to pass into the Senior Class, must attain an average of 65 per cent in the examinations of the Junior Year. Members of the Senior Class in order to be admitted to the final examination for the degree of LL.B., must attain an average of 65 per cent in all the examinations of both years. The above examinations are all written and are conducted by the Faculty.

The examination for the degree of LL.B., is prescribed and conducted by a committee of the Advisory and Examining Board. This examination is also written and occupies about one week. The Board is composed of leading members of the judiciary and bar of St. Louis, selected by the Directors of the University. Each senior is required to present, on or before May 15, an original thesis upon a legal topic selected by the Faculty. The subject of the thesis for the class of 1901 was, "The Law of Mistake, in the Avoidance of Contracts."

The degree of LL.B., conferred by the University, entitles the holder to admission to the Bar of Missouri without further examination. No student will receive the degree before the completion of his twenty-first year.

MOOT-COURT.

A Moot-Court is held weekly throughout seven months of the year. It is conducted, as nearly as possible, with the forms of an ordinary court of justice, and students are expected to draw pleadings in the cases assigned to them, and to conduct them through all the stages of a legal or equitable suit before trying the issue in the Moot-Court. Members of the Senior Class may be appointed to sit as Associate Justices, and required to write opinions. The cases will be selected to illustrate the subjects studied by the classes and will be made, so far as possible, means of instruction, not only in practice, but in the doctrines of the law. Both classes will be assigned to argue cases in these courts. The Moot-Court Record is a weekly, published by the School, containing the Statements of Facts, Briefs and Opinions.

FEES AND EXPENSES.

The annual fee for attendance in either class is \$80, payable in advance. There are no extra charges of any kind. No reduction will be made from the term fee, nor any part of it returned for absence from any cause.

Good board and lodging can readily be obtained in the city at from \$4 to \$5 per week. The expenses may be lessened to students rooming together. The average price paid for board with rooms during the last two or

three years by students in good houses near the Law School is believed to have been not over \$20 per month, while some have obtained it as low as \$15.

Those who find it necessary to earn a part of their living in other pursuits while taking the course can do so by lengthening that course from two to three years, taking a proportionate part of the class-work (to be designated by the Faculty according to circumstances of each case) in each year. Every facility will be extended to them for such an arrangement; and the charge for tuition in such cases will only be for two years; but no other diminution of the daily requirements of attendance and study will be sanctioned, except in the case of special students not candidates for a degree.

The expense of text-books for the entire course, if purchased new and of the latest editions, is about \$75. This sum may be materially reduced by the purchase of second-hand books which may be usually had in considerable variety. All the books used in recitation may be found in the library and can be studied there free of charge, but not taken from the room.

SCHOLARSHIPS AND PRIZES.

In pursuance of the terms of a donation of \$6,000 heretofore made to the University for the benefit of the Law School, *six free scholarships* are established in this department; also an annual prize of \$50 in money for the best thesis upon some legal topic, to be publicly awarded at Commencement. Competition for this prize is confined

to the regular members of the graduating class in each year under regulations duly announced.

The Alumni Association of the St. Louis Law School offers a prize of \$50.00 to that member of the present senior class who shall attain the highest general average in examinations, said "general average" to be determined as follows: Take the average mark attained by him in the Junior Faculty examinations; also, his average in the Senior Faculty examinations; also, his average in the final examinations. Then find the average of those three marks.

Applicants for *free scholarships* should apply in person or by letter to the Dean, on or before the fifteenth day of September, furnishing written testimonials of at least two responsible persons, that the pecuniary circumstances of the applicant are such as to make him deserving of this assistance, that he is of good character and standing, and that he has received a good English education at least. Other things being equal, preference will be shown to candidates who have received a collegiate education, and especially to those who have done this wholly or partially by their own efforts. Applicants not personally known to any of the Faculty will do well to state fully and precisely their age, place of birth and residence, present occupation, education (both general and legal), and any other circumstances that may be of weight in making a selection. Such communications will be held strictly confidential.

As the applicants for *free scholarships* are usually far in excess of the number that can be given, no student will

hereafter have the benefit of such scholarship for more than one year. As far as practicable, the scholarships will be equally divided between the two classes—depending upon the number and the success of the candidates for scholarship in either class.

Two members of each class have an opportunity to earn their tuition and a small salary in addition, by service as librarians, and in other capacities connected with the work of the School. Applications for such positions must be made in person, on or before the fifteenth day of September.

For further information, inquiries may be addressed to Wm. S. CURTIS, Law School Building, 1417 Locust Street, St. Louis, Mo., or the Secretary of Washington University.

MEDICAL DEPARTMENT
OF
WASHINGTON UNIVERSITY.

CALENDAR.

1901-1902.

SESSION OPENS Thursday, September 26.

CHRISTMAS VACATION, December 22 to January 2, inclusive.

COMMENCEMENT (Graduating Exercises), Thursday, May 8, 1902.

HOLIDAYS: Thursday of Fair week, Thanksgiving Day, Washington's Birthday.

MEDICAL DEPARTMENT OF WASHINGTON UNIVERSITY.

BOARD OF OVERSEERS.

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*GEORGE E. LEIGHTON. G. BAUMGARTEN, M.D., Sec'y.

*HENRY HITCHCOCK. ISAAC W. MORTON.

*JAMES E. YEATMAN. HERMAN TUHOLSKE, M.D.

HORATIO N. SPENCER, M.D.

WASHINGTON E. FISCHEL, M.D.

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J. B. JOHNSON, M.D.,

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P. GERVAIS ROBINSON, M.D., LL.D.,

Professor Emeritus of the Principles and Practice of Medicine.

J. K. BAUDUY, M.D., LL.D.,

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Professor of the Principles of Surgery.

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Professor of the Practice of Medicine.

H. TUHOLSKE, M.D.,

Professor of the Practice of Surgery and Clinical Surgery.

* Deceased.

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Professor of Clinical Medicine.

ROBERT LUEDEKING, M.D.,

Professor of the Diseases of Children.

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Professor of Genito-Urinary Surgery. Treas.

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Professor of Clinical Medicine.

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Professor of Oatology.

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Professor of Oatology, Dean.

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Professor of Physiology, Registrar.

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Professor of Chemistry, Secretary.

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JOHN GREEN, M.D.,
Special Professor of Ophthalmology.

FRANK R. FRY, M.D.,
Professor of Diseases of the Nervous System.

F. A. GLASGOW, M.D.,
Professor of Clinical Gynecology.

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Professor of Diseases of the Throat, Nose, and Chest.

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Clinical Professor of Diseases of the Ear.

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Professor of Materia Medica and Pharmacy.

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Clinical Professor of Gynecology.

CHARLES H. DIXON, M.D.,
Clinical Lecturer on Surgery.

HENRY L. WOLFNER, M.D.,
Clinical Lecturer on Diseases of the Eye.

GREENFIELD SLUDER, M.D.,
Clinical Lecturer on Diseases of the Nose, Throat and Chest.

EDWIN C. BURNETT, M.D.,
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Lecturer on Descriptive Anatomy.

A. E. EWING, M.D.,
Clinical Lecturer on Diseases of the Eye.

LOUIS H. BEHRENS, M.D.,
Clinical Lecturer on Diseases of the Chest.

ALBERT E. TAUSSIG, M.D.,
Clinical Lecturer on Medicine.

E. F. TIEDEMANN, M.D.,
Lecturer on Pathology, and Curator of the Museum.

HENRY C. HARTMAN, M.D.,
Clinical Lecturer on Orthopedic Surgery.

E. C. RUNGE, M.D.,
Lecturer on Mental Diseases.

GIVEN CAMPBELL, JR., M.D.,
Clinical Lecturer on Diseases of the Nervous System.

GEORGE M. TUTTLE, M.D.,
Lecturer on Therapeutics.

WILLIS HALL, M.D.,
Clinical Lecturer on Venereal Diseases of Women.

JOHN ZAHORSKY, M.D.,
Clinical Lecturer on Diseases of Children.

H. A. GEITZ, M.D.,
Instructor in Minor Surgery and Bandaging.

PHIL. HOFFMAN, M.D.,
Clinical Lecturer on Orthopedic Surgery.

HENRY S. BROOKES, M.D.,
Clinical Lecturer on Medicine.

JESSE S. MYER, M.D.,
Instructor in Clinical Chemistry and Microscopy.

WILLARD BARTLETT, M.D.,
Demonstrator in Surgical Pathology.

A. D. GHISELIN, M.D.,
Instructor in Anatomy.

MEDICAL DEPARTMENT.

SESSION 1901-1902.

Early in the year 1899 the respective Faculties of the St. Louis Medical College and of the Missouri Medical College took certain preliminary steps looking to the union of these two institutions. With this end in view both faculties resigned, and in due course combined to form the Medical Department of Washington University, of which the present session of 1901-1902 is the third since the union of the two older schools in 1899.

The Missouri Medical College was founded in 1840, and with the exception of the years of the Civil War had given continuous instruction up to 1899.

The St. Louis Medical College was founded in 1842, and had just completed its 58th consecutive annual course. Under an ordinance enacted in 1891, it was created the Medical Faculty of the Washington University, and has continued in that relation since that time.

This union of the two oldest and most representative of the medical colleges in the West was undertaken and successfully consummated solely in behalf of a broader and more thorough training, and we firmly believe that this object has been accomplished.

As will be seen in another place, there has been a considerable increase in the size and effectiveness of the teaching force. The University has at its disposal two new and finely equipped college buildings, and the facilities for clinical work have been greatly multiplied.

The graded course of study now some time established has been elaborated and extended as experience has dictated, and always in the direction of higher standards and broader teaching. Now that four years of attendance prior to graduation have been adopted and required from all candidates, it has become possible to introduce new features in the plan of instruction, by which the student will gain greater leisure for his work and more liberty in the selection of his studies.

A distinctive feature of the Medical Department of the Washington University is the requirement of and full provision for extended laboratory work, by every student, in all the fundamental subjects of medical study. The extent and scope of the required practical work in Anatomy and in Chemistry have been greatly enlarged, and full laboratory courses are given in Histology, in Medical Chemistry, in Pathological Anatomy, and in Bacteriology. The actual making of post-mortem examinations by the student himself will be made a feature of the instruction.

In general the method of teaching pursued in this institution will be, so far as practicable, that of direct personal instruction of each student. In addition to the usual methods of lectures, didactic and clinical, there will be recitations from the text-books, and clinical conferences, in which the student examines the patient and submits a written report of his diagnosis for criticism and discussion.

HOSPITALS AND DISPENSARIES.

Especial attention is called to the unusual clinical advantages offered the student in connection with the

large number of Hospitals and Dispensaries directly under the control of the Medical Department of the Washington University.

ST. LOUIS MULLANPHY HOSPITAL.

This is the oldest and most widely-known general hospital in the West. Its extensive general and special clinics are conducted by members of this Faculty, and are devoted wholly to the instruction of its students.

SAINT JOHN'S HOSPITAL.

Saint John's Hospital, recently enlarged by new buildings, is in charge of the Sisters of Mercy. Its medical and surgical management is entirely controlled by the Faculty. This institution is situated within a few blocks of the Medical Department. In addition to the hospital proper there is a large out-door attendance of patients in the several dispensaries.

POLICLINIC HOSPITAL AND DISPENSARIES.

The Polyclinic Hospital, which adjoins one of the main buildings of the Medical Department, contains a number of wards and rooms that are especially maintained for the reception of patients treated in the Medical Department clinics, a matter of great convenience and utility in teaching. The dispensaries in connection with the Hospital are unusually largely attended, and are so organized in general and special clinics that the greatest abundance of material for instruction can always be utilized. In addition to the usual reception and consultation rooms, pharmacy, etc., there is a handsome surgical amphitheater capable of seating over four hundred students.

BETHESDA HOSPITAL.

The Bethesda Hospital, with its maternity and foundling departments, is under the direct supervision of Professor E. W. Saunders, and is accessible to the senior students of this School only. Opportunity is here afforded for exercises in obstetrical diagnosis, and in acquiring practical experience in midwifery. At the Foundling Hospital the student is made familiar with infantile diseases and artificial feeding.

O'FALLON DISPENSARY.

The O'Fallon Dispensary is a special clinical department of the School with general medical and surgical clinics and the various special clinics fully represented.

An Obstetrical Out-clinic attached to the Dispensary affords the senior students special opportunities for practical work in this important branch of medicine.

At the City Hospital, the Female Hospital, the Insane Asylum, and the Poor House, the Medical Department stands on equal terms with others in the privilege of visiting and clinical instruction.

The attention of students is called to the fact that a corps of assistant physicians to the various municipal hospitals is appointed each year after competitive examination, to which all members of the graduating class are eligible.

We beg to direct attention to the fact that hitherto four-fifths of the positions in the city hospitals have been filled by the graduates of the Saint Louis and Missouri Medical Colleges.

THE COURSE OF STUDY.

The curriculum is based upon the amount and kind of work required to be done by candidates for the degree. The courses to be followed are graded in such a manner that all the fundamental studies and general courses are required to be taken before special courses and advanced work can be pursued. Of the latter a certain part is elective; and of the large amount of clinical work a considerable part is made elective in order that the student may enjoy some liberty in the pursuit of the higher studies and specialties. In addition, a few optional courses are given. Thus the greater part of the work required for the degree shall consist of obligatory courses and the remainder may be chosen out of a large assortment of electives.

The various courses consisting in nearly every instance of both didactic and practical work, are obligatory, except where otherwise specified. Throughout the four years the classes are instructed separately in the clinics and laboratories as well as in the lecture rooms. Sectional teaching and individual instruction form part of the required work of the third and fourth years.

ELECTIVE COURSES.

No student may elect practical work in a subject unless attending or having attended the course of lectures on that subject. Every candidate for the degree must choose two specialties out of the number given below, and follow all courses indicated for each; and he is advised to

do all available work in the specialties chosen, besides what is actually required.

Diseases of the Chest, Nose and Throat.

Pediatrics.

Diseases of the Nervous System.

Orthopedic Surgery.

Genito-Urinary Surgery.

Gynecology.

Dermatology.

Ophthalmology.

Otology.

OPTIONAL STUDY.

Students in the third and fourth years may choose, under advisement, courses of the first and second years. No student will be permitted to undertake optional work who has not completed satisfactorily all work required of him in past semesters.

Certain special courses in the following subjects are also offered as optional studies : —

Pathology and Bacteriology.

Clinical Medicine.

Surgery.

ORDER OF OBLIGATORY COURSES.

The following table exhibits the distribution of obligatory courses by semesters. The number of hours per week for each course will be found to the right of the name.

LECTURES.		PRACTICAL WORK.
First Year. 1st Semester:		
Chemistry	4	Chemistry
Anatomy	6	Anatomy
		Histology
2d Semester:		
Chemistry	1	Chemistry
Anatomy	7	Anatomy
Physiology	3	Histology
Second Year. 3d Semester:		
Chemistry	3	
Anatomy	3	
Physiology	3	
Mat. Med. & Ther.	4	
Pathology	3	Pathology
		Medicine
Second Year. 4th Semester:		
Chemistry	1	Physiology
Mat. Med. & Ther.	2	Mat. Med. & Ther.
Pathology	4	Pathology
Medicine	2	Medicine
Third Year. 5th Semester:		
Medicine	5	Medicine
Pediatrics	2	Pediatrics
Dis. Nerv. Syst.	2	Dis. Nerv. Syst.
Surgery	5	Surgery
Obstetrics	2	
Dermatology	1	
6th Semester:		
Medicine	3	Medicine
Pediatrics	2	Pediatrics
		Dis. Nerv. Syst.
Surgery	2	Surgery
Orthopedic Surgery	1	
Obstetrics	2	
Dermatology	1	
Ophthalmology	1	
Otology	1	

LECTURES.

PRACTICAL WORK.

Fourth year. 7th Semester:

Medicine	4	Medicine	2+
		Laryngology	2
Pediatrics	1	Pediatrics	1
		Dis. Nerv. Syst.	2
Surgery	3	Surgery	5
		Orthopedic Surg.	1
Genito-Urin. Surg.	2	Genito-Urin. Surg.	1
		Gynecology	3
Obstetrics	1	Obstetrics	3+
		Dermatology	2
Ophthalmology	1	Ophthalmology	2
Hygiene	2	Otology	2

Fourth Year. 8th Semester:

Medicine	3	Medicine	5+
		Laryngology	2
		Pediatrics	1
		Dis. Nerv. Syst.	2
Surgery	3	Surgery	5
		Genito-Urin. Surg.	1
		Gynecology	3
Obstetrics	1	Obstetrics	3+
		Dermatology	2
		Ophthalmology	2
Forensic Medicine	3	Otology	2

It will be seen from the above table that all subjects are obligatory; but while the student attends the clinics in general medicine, surgery, pediatrics and neurology throughout the last two years, he works in the special clinics for part of the time only (generally half a semester), taking them in rotation, the class being divided into sections.

The number of hours per week of required work ranges between twenty-seven and thirty-two; in the fourth year every student must do extra work in two of the specialties.

REQUIREMENTS FOR ADMISSION.

Candidates for admission to the Medical Department will be received upon the following conditions: —

1. Satisfactory certificate of good moral standing.
2. (a) The presentation of a College degree in Letters or Science, (b) of a diploma or certificate of graduation from an Academy or High School, or (c) of a certificate showing that the candidate has passed the entrance examination to an accredited College or Scientific School, or (d) the special preliminary examinations prescribed by State regulations for admission to the study of medicine, or (e) passing an examination in the following branches: English grammar and composition, arithmetic, algebra as far as quadratics, elementary physics, United States history, geography, and Latin equivalent to one year in a High School.*

These examinations will be conducted by examiners appointed by the Chancellor of Washington University.†

Inasmuch as the requirements preliminary to the study of medicine and to the registration of physicians vary

* Candidates who fail in the examination in Latin will be given an opportunity to make up the deficiency before the beginning of their second year.

† Regular entrance examinations will be held on September 24th and 25th, 1901. Candidates may, however, arrange for special examination during the summer by applying to the Dean.

somewhat in the different States, it is particularly enjoined upon all students to conform in all respects to the special regulations governing admission to medical practice in the State in which they intend to reside.

The Faculty reserves the right to terminate the connection of any student with this institution if for any cause he should prove unfit to pursue his professional studies.

ADMISSION TO ADVANCED STANDING.

At the end of the First Year:—

A regular student (candidate for the degree) will be promoted to the Second Year Class, if he has satisfactorily followed the work prescribed for the First Year, and successfully passed the examinations in two of the three subjects: Chemistry; Anatomy; Histology. A condition in one of these must, however, be made up by the end of the Second Year.

At the end of the Second Year:—

A regular student will be promoted to the Third Year Class if he has followed the courses prescribed for the Second Year, and successfully passed the examinations in all but one of the following subjects: Physiology; Materia Medica and Therapeutics; Pathology; Applied Anatomy; Clinical Chemistry and Microscopical Diagnosis; Normal Auscultation and Percussion. He may therefore enter the Third Year Class with *only one* condition, which must be removed by the end of the Third Year.

At the end of the Third Year:—

The student will be promoted to the Senior Class, if he has received a passing grade in a majority of the obligatory courses of the Third Year. This grade will be determined by the teacher through quizzes, or periodical or final written examinations, or in the case of laboratory or clinical work by practical tests, at the option of the teacher.

At the end of the Senior Year: See Requirements for Graduation.

ENTRANCE TO ADVANCED STANDING.

Graduates in Dentistry may enter the Second Year Class on passing a satisfactory examination in the studies of the First Year.

Graduates in Pharmacy will be required to take the full Four Years' Course, but will be given credit for their work in Materia Medica and Pharmacy, and in Chemistry on passing a satisfactory examination in this branch.

Graduates of colleges of Letters or Science who have followed a course in Biology equivalent to at least a majority of the studies of the First Year in this school may enter the Second Year Class, and receive credit for as much of the work of the First Year as they have already done. Since, however, the amount and character of the biological work required for obtaining such degrees vary widely in different institutions, the Faculty reserves the right in any case to satisfy itself of the fitness of the applicant by examination.

Students from other reputable medical schools will be admitted to the corresponding class in this school with or without examination in the work of the preceding years according to the judgment of the Executive Committee.

Tuesday, September 24, the Executive Committee will meet candidates from other medical schools who wish to enter without examination, to pass upon their credentials and satisfy themselves of the fitness of such candidates.

Arrangements have been made with the Faculty of the Undergraduate Department of Washington University whereby students in that Department intending to enter the Medical Department may elect in their A. B. course certain branches of the medical course. These are to be taken in the Medical Department and the grades so made will be credited to them in both their A. B. course and their M. D. course. By this means the time required for obtaining the two degrees may be shortened. Further information concerning this arrangement will be cheerfully given on request.

DOUBLE DEGREE IN MEDICINE AND DENTISTRY.

Students of the Missouri Dental College who desire to obtain the medical degree also may shorten the course by matriculating in the Medical Department at the beginning of their studies, and completing the work of the first two years of the medical course during their dental course and then taking the last two years in the Medical Department. They may thus obtain both degrees in 5 instead of 7 years. The fee for this course shall be the matricu-

lation fee, a laboratory fee to be established by the Faculty, and the tuition fee for two years.

GRADUATE AND SPECIAL COURSES.

Physicians, graduates of an accredited regular school of medicine, are admitted to any of the courses of instruction given in the Medical Department, subject to such restrictions as may grow out of the assignment of hours in the programmes of work laid out for the several classes, and to the single further restriction that, in the case of those desirous of taking advanced laboratory work, such proficiency in elementary work as may be necessary for its successful prosecution will be required. A certificate of actual attendance will be given upon request.

SUMMER COURSES.

Beginning May 6th and ending July 6th, 1901, teachers in the Medical Department offered the following courses: chemistry, anatomy, histology, pathology, bacteriology, clinical chemistry and microscopy, internal medicine and physical diagnosis, pediatrics, diseases of the nervous system, general surgery, orthopedic surgery, genito-urinary surgery and other special branches, gynecology, obstetrics, dermatology and ophthalmology. Courses will be given next year. For information apply to R. J. Terry, M. D., Secretary of Summer School, 1806 Locust street.

REQUIREMENTS FOR GRADUATION.

- (1) The candidate must be twenty-one years of age.
- (2) He must be of good moral character (which includes unexceptionable conduct while at this school).
- (3) He must have attended not less than four regular annual courses of medical instruction, the last of which must have been in this school.
- (4) He must, by the first of April, have notified the Dean, in writing, of his intention to present himself as a candidate for the degree.
- (5) He must have discharged all indebtedness to the school.
- (6) At the end of the Fourth Year the degree will be recommended to be given to every student of the Senior Class, who (having fulfilled the above requirements 1-5), has received a passing grade in a majority of the obligatory courses of the Fourth Year, and who has passed satisfactorily in each and all of the six final examinations, viz.:—
 1. In *Medicine*, embracing questions in
 - a. Physical Diagnosis.
 - b. Practice of Medicine.
 - c. Clinical Medicine.
 - d. Diseases of the Nervous System.
 - e. Pediatrics.
 - f. Diseases of the Nose, Throat and Chest.
 2. In *Hygiene*, unless already passed at the end of the seventh semester.
 3. In *Forensic Medicine*.
 4. In *Surgery*, embracing questions in
 - a. Principles of Surgery.
 - b. Practice of Surgery.
 - c. Operative Surgery.
 - d. Surgery of the Brain and Spinal Cord.
 - e. Fractures and Dislocations.
 - f. Orthopedic Surgery.
 - g. Genito-Urinary Surgery.
 - h. Clinical Surgery.

5. In *Obstetrics and Gynecology*, embracing questions in
 - a. *Obstetrics*.
 - b. *Operative Obstetrics*.
 - c. *Clinical Obstetrics*.
 - d. *Clinical Gynecology*.
6. In *two of the following specialties*:*
Diseases of Nose, Throat and Chest.
Neurology, including Psychological Medicine.
Pediatrics.
Ophthalmology.
Otology.
Dermatology and Syphilis.
Genito-Urinary Surgery and Syphilis.
Gynecology.
Orthopedic Surgery.

The examinations in these specialties will be more complete and searching than the questions on the same subjects embraced in the other final examinations (1-5).

For unusual excellence in the work of the course the Faculty may at its discretion vote to recommend that the degree "cum laude" or "summa cum laude" be granted.

SCHOLARSHIPS.

1. The HENRY HITCHCOCK SCHOLARSHIP, established by Hon. Henry Hitchcock, entitles the beneficiary to one year's free tuition.
2. The GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Diseases of Children, entitles the holder to one year's free tuition.

* The student must choose his two specialties and report them to the Registrar before entering on the work of the Senior Year; it is advised that the choice be made by the end of the fifth semester. He is expected to follow all the available instruction in these specialties.

PRISES.

Two "GEORGE F. GILL Prizes" are offered to the students of the School, viz.: —

1. One prize of \$50 to be awarded at the end of the First Year to the member of the class who shall have made the highest grade in anatomical work assigned to the First Year class.
2. One prize of \$50 to be awarded to a member of the graduating class, of high general standing, who shall have done specially good work in the department of *Diseases of Children*.
3. A CURTMAN prize will be awarded at the end of the First Year to the member of the class who shall have made the highest grade in Chemistry.

FEES.

(PAYABLE IN SEPTEMBER OF EACH YEAR.)

Matriculation Fee (payable but once) . . .	\$ 5 00
Fee for each year	100 00

A charge of \$5.00 will be made to cover the cost of chemicals supplied to students in the Chemical Laboratory.

A charge of \$3.00 will be made to cover the cost of chemicals supplied in Physiological Chemistry and Urinology.

A fee of \$5.00 will be charged for the use of anatomical material. The rental of microscopes will be: for new instruments, \$3.00; for old ones, \$2.00 per year.

No charge is made for demonstrators' or hospital tickets, or for graduation.

The matriculation fee (\$5.00), and the fee for the year (\$100.00), are payable to the Dean or the Registrar at the time of matriculation, at the beginning of the school year, in September.

Students are required to make good any loss by breakage or destruction of apparatus belonging to the school.

Candidates for the degree will not be admitted to the final examinations, unless all indebtedness to the school has been paid.

NOTE.— Graduates of the St. Louis Medical College and of the Missouri Medical College have perpetual free admission, but will be charged a fee of \$20.00, if laboratory work is taken.

Graduates of other medical schools, who have held their diplomas for less than three years, will be charged the matriculation fee and twenty dollars for attendance during a school year, or part of a year; they will also be charged a laboratory fee of \$20.00.

Graduates of other medical schools, who have held their diplomas for three or more years, will be charged the matriculation fee and a laboratory fee of \$20.00.

Graduates in medicine, who may be admitted to the Medical Department as candidates for a degree, will be charged the matriculation fee and the fee for one year.

Special Courses of Instruction may be arranged by applying to the Dean.

CATALOGUE OF STUDENTS.

FIRST YEAR CLASS.

NAMES.	RESIDENCE.
Alexander, R. D., A.B.	St. Louis, Mo.
Ambrister, J. C.	Norman, Okla.
Anderson, O. B.	Keytesville, Mo.
Beeson, J. P.	Noel, Mo.
Berrey, M. O.	Batchtown, Ills.
Betts, C. E.	Hammond, Ills.
Brewster, B. M.	Macedonia, Mo.
Bribach, E. J.	St. Louis, Mo.
Brossard, P. M.	Kirkwood, Mo.
Cline, H. X.	Marion, Ills.
Cobble, T. H., Jr.	Rusk, Texas.
Cook, J. E.	St. Louis, Mo.
Crenshaw, W. C.	Caledonia, Mo.
Doron, P. R.	Harrisonville, Mo.
DuMars, E. C.	Peoria, Ills.
Eckel, O. F.	Edinburg, Ills.
Fildes, V. S.	Samsville, Ills.
Fischel, W., A.B.	St. Louis, Mo.
Gable, W. E.	Peoria, Ills.
Gaebe, O. C.	Addieville, Ills.
Gehrung, E. S.	St. Louis, Mo.
Goldman, M.	St. Louis, Mo.
Goodman, D. C.	Springleld, Ills.
Greenwood, M.	Akron, O.
Gregg, A. M.	Joplin, Mo.
Guggenheim, L. K.	Dallas, Ky.
Hale, J. W.	Bellevue, Mo.
Hamilton, B. G.	Fargo, N. D.

NAME.	RESIDENCE.
Hastings, J. B.	Upper Alton, Ills.
Hayward, J. W.	Paris, Idaho.
Henske, A. C.	St. Louis, Mo.
Hirsch, A.	Girard, Ills.
Hooss, C. H. A.	Perryville, Mo.
Huelsman, L. C., A.B.	St. Louis, Mo.
James, J. M.	Sellers, Ills.
Kern, B. C.	Colorado Springs, Colo.
King, V.	Dadeville, Mo.
Klenk, C. L.	St. Louis, Mo.
Knewitz, O.	New Athens, Ills.
Kress, C. C.	Jefferson Barracks, Mo.
Lane, G. G.	Rich Hill, Mo.
Lightner, O. N.	Wichita, Kans.
Lincoln, H. F., Jr.	Kirksville, Mo.
Lumley, Z. D.	Kampsville, Ills.
McAmis, L. C., Ph.G.	St. Louis, Mo.
McMillan, P. D.	Maryville, Mo.
McMurdo, W. W.	Marissa, Ills.
McNutt, J. C., A.B.	Hammond, Ills.
McPheeters, S. B., A.B.	St. Louis, Mo.
Minton, W. H.	Fortescue, Mo.
Mitcham, H.	Lehigh, I. T.
Moore, S.	Lynchburg, Va.
Nalley, T. J.	Louisiana, Mo.
Nettles, F. H., Ph.G.	Cape Girardeau, Mo.
Nix, W. H.	Carpenter, Ills.
Nuss, O. W.	Louisville, Ky.
Nyberg, R. B.	Harrisburg, Ills.
O'Rourke, W. L.	Peoria, Ills.
Owen, H. W.	Newport, Ark.
Park, G. M.	St. Louis, Mo.
Rose, C. M.	Benton, Ills.
Russell, P. K.	Mexico, Mo.
Schlernitzauer, R. A.	Millstadt, Ills.

NAMES.	RESIDENCE.
Scudder, J. A.	Edwardsport, Ind.
Senseney, E. T., A.B.	St. Louis, Mo.
Sheahan, E. L., A.B.	St. Louis, Mo.
Shields, D. F.	Carrollton, Mo.
Smith, S. P.	St. Louis, Mo.
Story, P.	Fruitland, Mo.
Sutter, J. R., JR.,	Edwardsville, Ills.
Thomas, E.	Denver, Colo.
Thompson, H. H., B.S., A.M.	Nashville, Ills.
Van Meter, E. R.	St. Louis, Mo.
Vise, H. A.	Macedonia, Ills.
Vonnahme, C. B.	East St. Louis, Ills.
Webb, B. B.	Belleville, Ills.
Weisert, C.	St. Louis, Mo.
Wilson, E. H. G.	Cape Girardeau, Mo.
Wilson, R. M.	Columbus, Ark.
Wobus, R. E.	Quincy, Ills.
Zell, A. M.	St. Louis, Mo.

SECOND YEAR CLASS.

Austin, A. M.	Mendon, Ills..
Bader, G. W., Ph.G.	Belleville, Ills.
Baldwin, P.	Kennett, Mo.
Ball, J. E., Jr.	Richmond, Mo.
Beckert, J. H., A.B.	St. Louis, Mo.
Bolton, J. F.	Eureka Springs, Ark.
Brandt, F. A.	St. Louis, Mo.
Brown, A. F.	Malta Bend, Mo.
Brownfield, S. T.	Brownfield, Mo.
Buckley, J. E., Ph.G.	St. Louis, Mo.
Calhoun, D. S.	Sumpter, La.
Cannon, H.	Cresco, Ia.
Clapper, W. L.	Unionville, Mo.
Craske, H. B.	Rushville, Ills.
Dickerson, H. W.	St. Louis, Mo.

NAMES.	RESIDENCE
Dudley, J. M.	Winchester, Ky.
Eastman, C. W.	Pullman, Wash.
Evans, J. L.	Washington, Ind.
Evers, E. T.	St. Louis, Mo.
Feuerborn, H. R.	St. Louis, Mo.
Fink, F. C.	Pleasant Plains, Ills.
Freund, J. T.	St. Louis, Mo.
Freund, N. M.	St. Louis, Mo.
Friedeberg, A. H., Ph.G.	St. Louis, Mo.
Fuller, A. G.	St. Louis, Mo.
Garstang, D. B.	St. Louis, Mo.
Gauen, G. O.	Waterloo, Ills.
Griffin, F.	Nokomis, Ills.
Hope, D. H.	Shawneetown, Mo.
Horwitz, A. E., A.B.	St. Louis, Mo.
Jones, H. L., A.B.	Blasser, Mo.
Keithly, C. L., A.B.	St. Louis, Mo.
Keller, H. S.	Edwardsville, Ills.
Keller, J.	Steeleville, Ills.
Kirby, F. B., A.B.	Harrison, Ark.
Koenig, G. W.	St. Louis, Mo.
Kroeger, G. B.	St. Louis, Mo.
Le Bien, E. A., Ph.G.	Lincoln, Kans.
Lenz, H. J.	Eau Claire, Wis.
Lester, R. B.	Valles Mines, Mo.
Lilly, T. E.	Trenton, Mo.
Lischer, R. L.	Mascoutah, Ills.
Long, F. L.	De Soto, Mo.
McCaffrey, H. E.	Blackstone, Mass.
Maloy, E. D.	Lomera, Tex.
Marnell, F. S.	Nebraska City, Neb.
Martin, J. G.	Hughesville, Mo.
Mayes, E. G.	St. Louis, Mo.
Mayes, J. F.	Pryor Creek, I. T.
Nolan, J. A.	Millstadt, Ills.

NAMES.	RESIDENCE.
Nutz, J. F., A.B.	Fort Scott, Kans.
Patterson, R. V.	St. Louis, Mo.
Pieper, G. A.	St. Louis, Mo.
Rohlfing, A. H.	St. Louis, Mo.
Scholz, R. P.	St. Louis, Mo.
Schulz, H. E.	Prairietown, Ills.
Shahan, W. E., A.B.	St. Louis, Mo.
Singer, J. J.	St. Louis, Mo.
Stayner, I. C.	Spencerville, O.
Terry, H. A.	Prophetstown, Ills.
Tooker, C. W., Jr.	St. Louis, Mo.
Weber, F. J.	Olney, Ills.
Whaley, R. W.	Browning, Mo.
Wolter, O. L.	St. Louis, Mo.
Woodbridge, J. H.	Marshall, Mo.
Yerkes, L. L.	Upper Alton, Ills.

THIRD YEAR CLASS.

Althans, C.	St. Louis, Mo.
Benner, W. J.	Woodburn, Ills.
Buchanan, J. M.	Richmond, Mo.
Cobean, H. L.	Wellington, Kans.
Cochran, F. B.	Cookman, Mo.
Coffey, L. M.	Downing, Mo.
Davie, J.	Jonesboro, Ills.
De Menil, H. N.	St. Louis, Mo.
Estill, F. L.	Colorado Springs, Colo.
Fahlen, F.	St. Louis, Mo.
Faulbaum, A. W.	Belleville, Ills.
Fuhrmann, R. H.	St. Louis, Mo.
Gable, E. O.	Peoria, Ills.
George, C. A.	Berryville, Ark.
Gordon, F. N.	Lexington, Mo.
Guhman, C. N.	St. Louis, Mo.
Hinkle, C. G.	Batesville, Ark.

NAMES.	RESIDENCE.
Horton, W. N.	St. Louis, Mo.
Howard, D. F.	Brookfield, Mo.
Hunker, L., Jr.	Roanoke, Mo.
Jungk, C. G. W.	St. Louis, Mo.
Kimball, A. C., A.B.	Kirkwood, Mo.
Klie, C. M. T., Ph.G.	St. Louis, Mo.
Klinefelter, M. L.	Vanderville, Ills.
McBratney, E. W.	St. Louis, Mo.
McQuillan, A. B.	East St. Louis, Ills.
Mairs, E. J.	Newtown, Mo.
Moeller, C. E.	Rock Island, Ills.
Nies, F. H.	St. Louis, Mo.
Pace, H.	Harrison, Ark.
Pierce, C. E., Ph.G.	Belleville, Ills.
Pierce, W.	St. Louis, Mo.
Rawlings, C. L.	New Harmony, Ind.
Reuss, A. L.	Belleville, Ills.
Savage, H. B.	Warsaw, Mo.
Scheve, E. F.	St. Louis, Mo.
Schreiber, A. W.	Caborn, Ind.
Scott, C. D., A.B.	Fulton, Mo.
Scott, T. A., B.S.	Tahlequah, I. T.
Simpson, J.	Palmer, Ills.
Smith, N. E.	Fayette, Mo.
Spannagel, W. C., Ph.G.	East St. Louis, Ills.
Stiers, F. L.	Peoria, Ills.
Switzer, C.	Hamilton, Mo.
Thompson, H. L.	Harrisburg, Ills.
Tuholske, M. C.	Akron, O.
Walker, G. W.	Jonesboro, Ills.
Welch, W. A.	Macon City, Mo.
Wilson, H. V.	St. Louis, Mo.
Winn, R. M.	New London, Mo.
Worden, G. K.	North Alton, Ills.
Wright, C. O.	Poplar Bluff, Mo.

NAMES.

RESIDENCE.

FOURTH YEAR CLASS.

Albrecht, F. H.	. . . . .	St. Louis, Mo.
Apperson, E. L.	. . . . .	California, Mo.
Barry, F. W.	. . . . .	Coffeen, Ills.
Brandt, A. L.	. . . . .	St. Louis, Mo.
Brown, L. S.	. . . . .	Butler, Ills.
Cannady, E. W.	. . . . .	East St. Louis, Ills.
Collins, J. A.	. . . . .	St. Louis, Mo.
Deichmann, O. H.	. . . . .	Mt. Vernon, Ills.
Downey, L. J.	. . . . .	Washington, Ind.
Flagge, P. W.	. . . . .	Batchtown, Ills.
Forsyth, R. C.	. . . . .	Kirkwood, Mo.
Frame, H. G.	. . . . .	Fairgrove, Mo.
Glahn, C. P., Jr.	. . . . .	Leonard, Mo.
Hodam, J. A.	. . . . .	St. Louis, Mo.
Irwin, J. M., A.B.	. . . . .	Inka, Ills.
Kleykamp, A. F.	. . . . .	St. Louis, Mo.
Loewenstein, H. M.	. . . . .	St. Louis, Mo.
McClintock, W. J.	. . . . .	Illiopolis, Ills.
McCully, A.	. . . . .	St. Louis, Mo.
McCutchan, G. L.	. . . . .	Bunker Hill, Mo.
McGlothlan, A. B.	. . . . .	Gaynor, Mo.
Marshall, A.	. . . . .	Bonneterre, Mo.
Martin, J. E.	. . . . .	Springfield, Ark.
May, A.	. . . . .	Marine, Ills.
Miller, H. E., Ph.B.	. . . . .	St. Louis, Mo.
Patrick, P. L.	. . . . .	Brookfield, Mo.
Pfeiffenberger, J. M.	. . . . .	Alton, Ills.
Pote, T. B.	. . . . .	St. Louis, Mo.
Rafter, J. G., Ph.G.	. . . . .	St. Louis, Mo.
Riley, R. D.	. . . . .	St. Louis, Mo.
Ross, J. E.	. . . . .	Springfield, Mo.
Rothman, P. M.	. . . . .	St. Louis, Mo.
Rothschild, S.	. . . . .	St. Louis, Mo.
Smith, O. W.	. . . . .	St. Louis, Mo.

NAMES.	RESIDENCE.
Splitze, E. C.	Edwardsville, Ills.
Stephens, G. K.	Newport, Ark.
Urban, E. T.	St. Louis, Mo.
Wainright, A. G.	St. Louis, Mo.
Walker, H. O.	Newpork, Ark.
Whelpley, F. L.	St. Louis, Mo.
Wichmann, A. G.	St. Louis, Mo.
Widney, J. T. B.	Lyndon, Kans.
Wright, C. M., B.S.	Altamont, Ills.

GRADUATE STUDENTS.

Beeson, H. O., M.D.	Noel, Mo.
Bishop, A. B., M.D.	Ashdown, Ark.
Brown, E. R., M.D.	St. Louis, Mo.
Cozad, F. A., M.D.	Powersville, Mo.
Harrison, G. W., M.D.	Albuquerque, N. M.
Melvin, J. M., M.D.	St. Louis, Mo.
Williamson, F. B., M.D.	St. Louis, Mo.

OTHER MATRICULANTS.

Bowers, E. S.	St. Louis, Mo.
Casner, A. J.	St. Louis, Mo.
Henderson, S. L.	Fayetteville, Ark.
Jones, E. B	Jacksonville, Tex.
Kipping, S., A.B.	St. Louis, Mo.
Lehrmann, H. G.	St. Louis, Mo.
McClure, L. E., Ph.G.	Walnut Grove, Mo.
McGee, G. R.	Sparta, Ills.
Meyerdich, A H., M.S.,M.D.	Mt. Pleasant, Ia.
Ory, C. W.	Grand Junction, Colo.
Sims, T. R.	St. Louis, Mo.
Snodgras, C. A.	St. Louis, Mo.
Terhellen, E. W., D.M.D.	St. Louis, Mo.
Urban, R. O.	Louisiana, Mo.
Total, 263.	

GRADUATES, 1901.

The Annual Commencement was held on Thursday, May 2d, 1901, when Prof. Charles Nagel delivered an address to the Graduating Class, and the Chancellor of the University conferred the Degree of Doctor of Medicine upon the following gentlemen, viz:—

- Aitken, Wallace Andrew.
Beatty, James David.
Benway, William Henry.
Bohn, Julius Charles, Jr., Ph.B.
Boles, Dallas Seth.
Bradley, John Martin.
Brown, Edward Thomas.
Burns, Robert, Jr.
Carver, Fred Hunn.
Caughlin, William Thomas.
Chandeysson, Pierre Ismail.
Corner, Albert Watson.
Craig, James Alexander.
Dillon, William Alphonsus, A.B.,A.M.
Drake, Claire Ferdinand.
Drake, James Erle.
Elbrecht, Oscar Herman, Ph.B.,Ph.G.
Farrel, John Joseph.
Fleeger, Abram Boyd, A.B.
Forder, William Carver.
Gallagher, Joseph Charles.
Gardner, Albert Jackson.
Gehrung, Julien August, A.B.,A.M.
Grim, Ezra Clarence, B.S.D.
Hagebush, Oscar Jarrel.
Hardy, William Frederick.

Harris, Irwin James.
Hempel, Max.
Hertel, Henry George, M.S.
Hofmann, Ottokar, Jr.
Hogg, Garrett, B.S.
Holben, Raymond Elias.
Humphrey, Joseph Harrison.
Joeating, Frederick Christian.
Kirchner, Walter Charles George, A.B.
Krenning, William George
LeGrand, Daniel Wesley.
Leusley, Marvin Eugene.
Lionberger, John Robert.
Matlack, James Allan, M.D.
Miller, Herman Benjamin.
Montague, Everett LaDew.
Nelson, William Lawrence.
Newcomb, Philip Butler, B.S.
Pitman, John Brand.
Pounder, Edgar Talman.
Reid, Edward Wilson.
Rush, William Harvey, B.S., A.B., A.M.
Shanks, Archie Lee. •
Smith, Arthur Joseph.
Trotman, Charles Arnold.
Wilson, Samuel Warren.
Woldridge, Homer Lee.
Wylder, Meldrum Keplinger, B.S.

PRIZES AND HONORS.

GILL PRIZE IN ANATOMY.

C. W. Tooker.

HONORABLE MENTION.

W. E. Shahan.

F. B. Kirby.

A. H. Friedeberg.

G. W. Koenig.

J. J. Singer.

GILL PRIZE IN DISEASES OF CHILDREN.

P. I. Chandeysson.

CURTMAN PRIZE IN CHEMISTRY.

C. W. Tooker.

HONORABLE MENTION.

A. H. Friedeberg.

G. W. Koenig.

The following graduates received publicly honorable mention for general excellence in the work of the course and were given the degree "cum laude": —

Dr. W. H. Rush.

Dr. Max Hempel.

Dr. W. F. Hardy.

Dr. W. C. G. Kirchner.

Dr. P. I. Chandeysson.

HOSPITAL APPOINTMENTS.

This year twenty-five positions as internes at the St. Louis City and Female Hospitals were awarded after competitive examination conducted by the Board of Health. Twenty-one graduates of the class of 1901 took the examinations and the following twenty have received appointments: William H. Benway, Julius C. Bohn, Jr., William T. Caughlin, James E. Drake, William Dillon, John J. Farrell, William C. Forder, Joseph C. Gallagher, Julien A. Gehrung, Ezra C. Grim, William F. Hardy, J. R. Lionberger, Garrett Hogg, Walter C. G. Kirchner, William G. Krenning, Herman B. Miller, William L. Nelson, John B. Pitman, William H. Rush, M. K. Wylder.

P. I. Chandeysson and I. J. Harris subsequently received appointments in the St. Louis City and Female Hospitals.

Physicians who wish to receive the Annual Announcement of the Medical Department of Washington University regularly, are requested to send their address to the Secretary of the Faculty; notice of change of residence is also desired. All further information may be obtained by addressing or calling upon the Secretary,

**W. H. WARREN, Ph.D.,
1806 Locust Street.**

**DENTAL DEPARTMENT OF
WASHINGTON UNIVERSITY.**

(MISSOURI DENTAL COLLEGE.)

CALENDAR — 1902-1903.

REGULAR ENTRANCE EXAMINATIONS: Monday, September 29th,
and Tuesday, September 30th, 1902.

THE THIRTY-SEVENTH ANNUAL SESSION begins about October
1st, 1902, and continues seven months.

CHRISTMAS RECESS: Tuesday, December 23d, 1902, to Monday,
January 5th, 1903, inclusive.

HOLIDAYS: Thursday of Fair week, Thanksgiving day, Wash-
ington's birthday.

THURSDAY, APRIL 10TH: Examination of Junior and Middle
classes begins.

COMMENCEMENT: About May 1st, 1903.

Students on arriving in the city are requested to apply to the Superintendent of the Infirmary for information as to rooms, boarding, etc. Good board at a convenient distance from the College may be obtained at from three to six dollars per week.

Dentists who wish to receive the Annual Announcement regularly, or those who have changed their address, are requested to notify the Secretary of the Faculty.

Students will be registered in the College Building by the Dean.

Any further information may be obtained by addressing or calling upon

J. H. KENNERLY, M.D., D.D.S., Dean,
1814 Locust Street.

O. W. BEDELL, M.D., D.M.D., Secretary.
1909 Lafayette Ave.

MISSOURI DENTAL COLLEGE.

BOARD OF OVERSEERS.

JAMES B. NEWBY, D.D.S.

GEO. O. CARPENTER.

WILLIAM E. GUY.

SIDNEY P. BUDGETT, M.D.

J. H. KENNERLY, M.D.,D.D.S., Secretary.

FACULTY.

WINFIELD S. CHAPLIN, LL.D.,

Chancellor of the University.

ELISHA H. GREGORY, M.D.,LL.D.,
Professor of the Principles and Practice of Surgery.

ALBERT H. FULLER, M.D.,D.D.S.,
Emeritus Professor of Operative Dentistry.

ORION W. BEDELL, M.D.,D.M.D., Secretary.
Professor of Embryology and Pathology.

SIDNEY P. BUDGETT, M.D.,
Professor of Physiology.

ROBERT J. TERRY, M.D.,
Professor of Anatomy.

WILLIAM H. WARREN, A.M.,Ph.D.,
Professor of Chemistry.

JOHN H. KENNERLY, M.D.,D.D.S., Dean,
Professor of Crown and Bridge Work.

HERMAN H. PRINZ, B.S., Ph.G., D.D.S., M.D.,
Professor of Dental Medicine, Metallurgy and Bacteriology.

WALTER M. BARTLETT, D.D.S.,
Professor of Prosthetic Dentistry.

BENNO E. LISCHER, D.M.D.,
Professor of Orthodontia and Dental Anatomy.

HENRY M. WHELPLEY, Ph.G., M.D.,
Professor of Materia Medica and Pharmacy.

GEORGE A. McMILLEN, D.D.S.,
Professor of Operative Dentistry.

C. A. SNODGRASS,
Lecturer on Histology.

WILLARD BARTLETT, A.M., M.D.,
Lecturer on Oral Surgery.

RICHARD T. BROWNRIGG, B.S.,
Professor of Dental Jurisprudence.

DEMONSTRATORS.

HERMAN F. CASSELL, D.M.D.,
BLAND N. PIPPIN, D.M.D.,
Prosthetic Dentistry.

J. R. PENDLETON, D.D.S.,
W. G. TEEL,
Operative Dentistry.

VILRAY P. BLAIR, M.D.,
Anatomy.

BENNO E. LISCHER,
Dental Technics.

Representative to the National Association of Dental Faculties,
JOHN H. KENNERLY, D.R.A.

CLINICAL INSTRUCTORS.

JAMES B. NEWBY, D.D.S.,
HENRY M. BAIRD, D.D.S.,
THEODORE L. PEPPERLING, D.D.S.,
ABEL J. PROSSER, D.D.S.,
JOHN G. HARPER, D.D.S.,
ORMOND H. MANHARD, D.M.D.,
ALBERT H. FULLER, M.D.,D.D.S.,
JOSEPH B. KIMBROUGH, D.M.D.,
HARRY D'OENCH, D.M.D.,
PETER H. EISLOEFFEL, D.D.S.,
MAX FENDLER, D.M.D.,
P. HOLM MORRISON, M.D.,D.D.S.,
EDWARD SCHRANTZ, D.D.S.,
THOMAS E. TURNER, D.D.S.,
STEPHEN H. VOYLES, D.M.D.,
MARTIN R. WINDHORST, D.M.D.,
MAURICE W. PEARSON, D.D.S.,
MALCOMB ROBB, D.M.D.,
WILLIAM G. COX, D.D.S.,
WILLIAM CONRAD, D.D.S.,
DeCOURCY B. LINDSLEY, M.D.,D.D.S.
FRED H. ACHELPOHL, D.D.S.

GRADUATING CLASS, 1901.

NAME.	ADDRESS.
Behrens, Charles Frederick	Illinois.
Brown, John Hinton	Missouri.
Crane, Leroy Vernon Miller	Missouri.
Dameron, Frank B.	Illinois.
Donnell, Thomas Gresham	Oregon.
Eaton, Howard Holmes	Illinois.
Ellis, Arthur Maud	Missouri.
Fischer, Edward John	Missouri.
Goodrich, Stephen Jones	Missouri.
Griffin, Edward	Missouri.
Hamm, Henry Amadins	Missouri.
Heitman, Hubert Louis	California.
Heitman, Frederick William	California.
Haverstick, Edward Everett	Missouri.
Hopkins, Frank Cook	Illinois.
Hutchason, Carroll Benjamin	Missouri.
Jones, Louis Debrell	Missouri.
King, Alphens Carleton	Illinois.
Kuper, Bernard Leo	Missouri.
McCall, Robert Augustine	Illinois.
McCalman, Carl Spencer	Iowa.
McClean, Alexander William	Missouri.
McDaniel, Mark Leroy	Illinois.
McHenry, Ralph Leonidath	Missouri.
McInerney, Harry William	Kansas.
Miller, Joseph Sanford	Missouri.
Meyers, Joel E.	Illinois.
Nations, Hugh S.	Illinois.
O'Connell, Francis Elias	California.
Pierce, Jesse Allen	Illinois.
Powell, Otho Bell	Kentucky.
Seilinger, Owen	Missouri.
Sheilhorn, Arthur Lemon	Nebraska.

NAME.	ADDRESS.
Sone, William James	Missouri.
Stamm, Anthony Peter	Missouri.
Staudinger, Paul Washington	Missouri.
Strode, Edward Austin	Missouri.
Stubblefield, Ed Arthur	Arkansas.
Terhellen, Emil William	Missouri.
Terrell, William George Barkley	Illinois.
Thilenius, Arnold Otto	Missouri
Van Buskirk, Joseph Milton	Iowa.
Wannamaker, Earl	Missouri.
Westhoff, George Henry Martin	Missouri.
White, Jesse Duncan	Illinois.
Williamson, Henry Turner	Texas.
Young, Williamson Beastall	Illinois.

SENIOR CLASS.

Bauer, Frederick William	Missouri.
Belk, Charles Anton	Illinois.
Blain, George James	Missouri.
Brigham, F. W.	Kansas.
Chapman, J. R.	Oregon.
Davis, R. L.	Tennessee.
Diggs, Charles W., Jr.	Missouri.
Dodge, Homer	Missouri.
Dutcher, Warren L.	Missouri.
Gilster, George Benjamin	Illinois.
Gsanther, Anthony Hayes	Nebraska.
Hickey, Matthew J.	Missouri.
Ilse, John William	Illinois.
*Jones, Fred Clifford	Illinois.
*Lensley, L. E.	Missouri.
Linder, Fred	Illinois.
Lindsay, Joseph Lloyd	Missouri.

* Not in attendance.

NAME.	ADDRESS.
Loney, Charles George	Missouri.
Lupton, Stuart Kenneth	Tennessee.
McCalmet, Ora Robert Calvin	Missouri.
Mohr, Lem H.	Missouri.
Mottaz, William L.	Illinois.
Nations, Guy Joseph	Illinois.
Oliver, Harry Waynard	Illinois.
Roe, Charles Henry, Jr.	Illinois.
Shewe, Edward F.	Missouri.
Scott, W. H.	Ohio.
Snider, L. S.	Colorado.
Stickel, F. A.	Kansas.
Townsend, Nealy James	Missouri.
Walker, Robert Frank	Missouri.
Watkins, John Delbert	Missouri.

MIDDLE CLASS, 1902.

Allee, Henry Etna	Missouri.
Alloway, Murray C.	Kentucky.
Ambrose, Munson Platt	Missouri.
Beshears, A. G.	Missouri.
Biggs, James Thompson	Missouri.
Brown, James A.	Missouri.
Buckley, James J.	South America
*Burcham, Wm. Joseph	Missouri.
Carey, Ben Watson	Illinois.
Chaudet, Louis S.	Illinois.
Collins, Harry Wilmer	Illinois.
Cottingham, G. W.	Missouri.
Coy, M. E.	Iowa.
Crenshaw, William Crosby	Missouri.
Graf, Julius, Jr.	Missouri.

* Not in attendance.

NAME.	ADDRESS.
Harrison, Edward R.	Iowa.
Holman, Edward Herman	Illinois.
Landon, Loren Oscar	Illinois.
Mitchell, O. A.	Illinois.
Osten, Oscar	Germany.
Reynolds, Wm. A.	Virginia.
Scott, Walter M.	Ohio.
Shickles, John Richard	Kansas.
Summers, Chas. Akin	Illinois.
West, Roy Ashton	Old Mexico.
Wilkinson, Albert Dean	Missouri.
Weidlich, Harold Clarence	Connecticut.

JUNIOR CLASS, 1902.

Bailey, Alexander.	Lenzen, Jacob.
Blair, F. P.	Letterman, W. G.
Brown, B. S.	Lynott, Frank.
Brown, R. F.	Major, T. F.
Crouse, J. W.	McCutchen, J. F.
Daniel, R. F.	Morrison, D. F.
Dueber, A. F.	Mueller, C. B.
Evans, J. W.	Northcutt, J. E.
Gray, E. G.	Olds, Elmer.
*Harmon, B. F.	Owsley, H. B.
Henry, C. D.	Perry, Fred.
Hines, G. B.	Pickhardt, L. H.
Hirschberg, Nathan.	*Pierce, Jas. A.
Hodgson, E. S.	Pollack, F. J.
Klefaber, Leo.	Rehm, H. S.
Kissel, B. L.	Roudebush, L. F.
Knight, Clint.	Rue, H. F.
Kunz, Valentine.	Robinson, R. M.

Not in attendance.

- | | |
|--------------------|---------------------|
| Selby, T. J. | Sturgeon, G. P. |
| Schwarz, J. G. | Tellman, J. G. |
| *Simpson, J. H. | Tetley, C. A. |
| Skidmore, Willard. | Tolson, J. H. |
| Sloan, D. A. | Traw, E. C. |
| Smart, E. E. | Trigg, Jr., Alfred. |
| Smith, J. W. | Walb, Arthur. |
| Sohm, A. H. | Walsh, R. E. |
| Stockton, Leo. | Walleson, E. A. |
| Stone, Max. | Wilcoxon, Roy. |
| Strawn, C. P. | Yahien, K. K. |

REQUIREMENTS FOR ADMISSION.

Every candidate for admission must present to the Faculty satisfactory evidence of a good moral character. He must have a good English education, as evidence of which he must present a certificate of graduation from a high school, college, or university; or an entrance certificate to the second year of a high school. The institution, however, granting these certificates to be accredited as standard by the communities within which they are located; or, in lieu of this certificate he must take a written examination by an appointee of the State Superintendent of Public Instruction.

Students who have attended courses of lectures in other accredited schools of Dentistry whose entrance requirements correspond to those established by the National Association of Dental Faculties and National Association of Dental Examiners, will be received into the Middle and Senior classes upon the presentation of certificates that they have passed examinations in the studies of the Junior and Middle grades respectively.

Such certificates are granted to any student after the satisfactory completion of a given course of study and are recognized as pledges to any college of the Association of Dental Faculties to whom the holder may apply that the stated number of terms have been spent in the institution by which the certificates are issued.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM DENTAL COLLEGES IN FOREIGN COUNTRIES.

Persons holding certificates from colleges of dentistry in foreign countries will be required to furnish properly attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., the same as required of students coming from our own institutions

ADMISSION OF GRADUATES OF MEDICINE.

A diploma from a reputable medical college may entitle the holder to enter the Middle class, and he may be excused from attendance upon the lectures and examinations in general anatomy, chemistry, physiology, materia medica and therapeutics.

ADMISSION AND CLASSIFICATION OF STUDENTS.

Students of all classes are required to register at the beginning of each session at the College Building with the Dean.

No student of any class will be registered after the tenth day of the session.

Students are designated as belonging to the First, Second or Third Year Class.

SCHEDULE OF STUDIES.**FIRST OR JUNIOR YEAR.**

**Subjects Completed
the First Year.**

{ Dental Anatomy.
Anatomy with Dissection.
Histology.
Chemistry.
Operative and Prosthetic Technics.

SECOND YEAR.

**Subjects Completed
the Second Year.**

{ Metallurgy.
Materia Medica and Pharmacy.
Physiology.

**Subjects Taken Sec-
ond Year and Con-
tinued during Third
Year.**

{ Operative Dentistry.
Prosthetic Dentistry.
Crown and Bridge work.
Embryology and Pathology.

THIRD YEAR.

**Subjects Completed
the Third Year.**

{ Oral and Clinical Surgery.
Operative Dentistry.
Prosthetic Dentistry.
Crown and Bridge work.
Embryology and Pathology.
Orthodontia.
Dental Medicine and Bacteriology.
Dental Jurisprudence.

The above Schedule is subject to change.

INFIRMARY.

This department is justly considered of the greatest practical importance. It is here the student must by the experience gained in actual practice with patients, lay the foundation for operative skill in his profession.

For this work the greater portion of three separate floors 26x84 feet have been set aside.

The first of these having a general office, with clerk and assistants constantly in charge to receive patients; a room for extracting teeth supplied with appliances for the administration of the various anæsthetics used in dentistry. The remaining space of this floor is divided into rooms for Crown and Bridge work, light laboratory work and taking impressions.

The second floor is used exclusively as an operating room, having one side of continuous windows reaching from floor to ceiling, each window being fitted out with a good chair, wall bracket and cabinet to hold the student's entire outfit including dental engines. Here with perfect light and pleasant surroundings, the student has an ideal place for learning the practical part of operative dentistry.

The basement is fitted out with modern apparatus for teaching all departments of Prosthetic Dentistry. This room has granitoid floors, good tables, benches, lathes, heating appliances, electric furnace and lockers for instruments. This infirmary, under the direction of the superintendent and demonstrators, is open daily except Sunday during the entire year.

OPERATIVE TECHNICS.

The student is trained in handling the instruments required in operations upon the teeth, their proper naming and the preparation of cavities. A study of the materials in use for filling teeth and practice in the preparation and insertion of them.

The treatment, preparation and filling of root canals, for which natural teeth will be set in convenient forms.

Enlarged drawings of vertical and cross-sections of the dental arches, showing the points of contact and interproximal spaces, will be studied.

The carving of teeth in ivory, using natural teeth as models, thus affording the student every opportunity of manipulative and æsthetic training, and the acquirement of habits of order and individual observation.

PROSTHETIC TECHNICS.

The student is trained in taking impressions of the mouth and the practical use of all the materials employed for that purpose, the making and repairing of vulcanite plates, making dies, swaging plates, and backing and soldering teeth.

A list of instruments will be furnished the student at the beginning of the term. Those for the Operative Technics cost about \$15. Those for the Prosthetic Technics cost about \$18. These instruments will be needed subsequently for work in the infirmary and laboratory, and are required before the student begins class work.

PRIZES.

Prizes will be awarded for proficiency in the different branches taught in the College.

The Missouri Dental College Faculty Prize. — A fifty-dollar gold medal to the graduate receiving the highest vote on final examination.

Missouri Dental Depot Prize. — Lowry Crown and Bridge outfit. For best specimen of Crown and Bridge work.

The John Rowan Dental Mfg. Co. Prize. — To the graduate standing second best in practical Operative Dentistry.

The St. Louis Dental Manufacturing Company Prize. — For the best specimen case of artificial teeth.

REQUISITES FOR THE DEGREE OF DOCTOR OF DENTAL SURGERY.

The candidate for graduation must be twenty-one years of age, and must possess a good moral character, *which includes good deportment while at the College.*

He must have attended three regular annual courses (no two courses of which shall have been taken during the same year) of dental instruction, the last of which must have been the Senior Course of this College.

He must treat thoroughly patients requiring all the usual dental operations, and under the eye of the Demonstrator or Superintendent of the Infirmary, construct practical artificial cases. He must undergo a satisfactory examination in all the branches taught in the

College and conform to the rules and regulations of the Infirmary.

FEES.

Matriculation Fee (paid but once) - - - - -	\$ 5 00
Tuition, each Session - - - - -	100 00
Fee for Chemical Laboratory - - - - -	5 00
Fee for Anatomical Laboratory - - - - -	2 00

No charge for diploma.

The entire fee is due and must be paid at the beginning of each session.

Students desiring to remain in the infirmary during the summer can do so by matriculating and paying \$25, which will be credited on their tuition at the beginning of the regular term.

TEXT-BOOKS.

LATEST EDITIONS ONLY.

Anatomy — GRAY. HOLDEN'S DISSECTOR.

Dental Anatomy — BROOMEIL. BLACK.

Chemistry — REMSEN'S BRIEFER COURSE IN CHEMISTRY.

Physiology — STEWART'S TEXT-BOOK OF PHYSIOLOGY.

Materia Medica and Pharmacy — U. S. PHARMACOPÆIA.

Principles and Practice of Dentistry — HARRIS.

Prosthetic Dentistry — ESSIG. RICHARDSON.

Orthodontia — TALBOT, GUILFORD, ANGLE.

Surgery — "An American Text-Book of Surgery." KEEN AND WHITE.

Operative Dentistry — KIRK. TAFT.

Dental Pathology — BURCHARD.

Dental Medicine — GORGAS.

Histology — PIERSOL.

Metallurgy — HODGEN.

Dental Jurisprudence — REHFUSS.

Dental Bacteriology — Miller's Micro-organisms of the Human Mouth; Abbott's Principles of Bacteriology.

Books of Reference — American System of Dentistry; Harris' Dental Dictionary; Garretson or Tomes Dental Surgery; Kingsley and Coles — Oral Deformities; Newth's Inorganic Chemistry; Simon — Manual of Chemistry; Farrar — Irregularities of the Teeth; Marshal — Oral Surgery; Eames — Dental Medicine.

This list is subject to change without notice.

SUMMARY OF GRADUATES.

OF THE COLLEGE				249
OF THE SCHOOL OF ENGINEERING				209
OF THE LAW SCHOOL				772
OF THE MEDICAL COLLEGE				2,222
OF THE DENTAL COLLEGE				500
HONORARY GRADUATES				16
				—
				3,968

SUMMARY OF MEMBERS OF THE UNIVERSITY.

COLLEGE AND SCHOOL OF ENGI-	1900-1901		1901-1902	
	Stu.	Instr.	Stu.	Instr.
NEERING	161	28	185	28
LAW SCHOOL	124	16	118	16
MEDICAL COLLEGE	248	53	263	58
DENTAL COLLEGE	104	17	172	20
TOTAL GRADUATE AND UNDER-	—	—	—	—
GRADUATE DEPARTMENTS	687	109	738	117
PREPARATORY SCHOOLS.				
SMITH ACADEMY	364	21	348	22
MARY INSTITUTE	457	30	432	31
MANUAL TRAINING SCHOOL	266	15	275	16
	—	—	—	—
	1,087	66	1,055	69
TOTAL GRADUATE, UNDERGRADUATE				
AND PREPARATORY DEPARTMENTS	1,724	175	1,793	186
SCHOOL OF FINE ARTS	381	14	332	13
TOTAL CONNECTED WITH THE UNI-	—	—	—	—
VERSITY	2,055	189	2,125	199

OFFICERS OF THE ALUMNI ASSOCIATIONS.

UNDERGRADUATE DEPARTMENT.

President: MR. WILLIAM SCHUYLER.

Vice-President: MR. WM. H. DANFORTH.

Secretary and Treasurer: MR. W. H. ALLEN.

Executive Committee: MR. WILLIAM SCHUYLER, MR. WM. H. DANFORTH, MR. W. H. ALLEN, MR. WM. C. ZELLE, MR. A. L. JOHNSON, MR. P. S. STEVENSON.

LAW DEPARTMENT.

President: MR. CHARLES CLAFLIN ALLEN.

Vice-President: MR. FRED. A. HEIDORN.

Secretary: MR. XENOPHON P. WILFLEY.

Treasurer: MR. LUTHER E. SMITH.

Executive Committee: MR. CHARLES CLAFLIN ALLEN, MR. XENOPHON P. WILFLEY, MR. ARTHUR E. KAMMERER, MR. THOMAS E. MULVIHILL, MR. A. L. ABBOTT.

MEDICAL DEPARTMENT.

President: DR. LOUIS H. BEHRENS.

Vice-President: DR. W. E. SAUER.

Recording Secretary: DR. W. L. JOHNSON.

Corresponding Secretary: DR. FRED. HALL.

Treasurer: DR. PHIL. A. HOFFMAN.

Executive Committee: DR. A. E. TAUSSIG, DR. JOHN ZAHORSKY, DR. WM. DEUTSCH.

DENTAL DEPARTMENT.

President: DR. J. G. HARPER.

Vice-President: DR. O. H. MANHARD.

Secretary: DR. J. B. KIMBROUGH.

Treasurer: DR. C. E. SCHUMACHER.

Executive Committee: DR. C. E. SCHUMACHER, DR. A. H. FULLER, DR. T. L. POKPPERLING.

OFFICERS OF THE ALUMNAE ASSOCIATION.

UNDERGRADUATE DEPARTMENT.

President: MISS LILLIE R. ERNST.

Vice-President: MISS MARY S. ITTNER.

Secretary and Treasurer: MISS SUSAN E. CHAPLIN.

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